EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	"6540981".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:48
L2	2	"7014839".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:50
L3	2	"6395357".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:52
L4	2	"6706254".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:51
L6	135	achilefu.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:53
S1	2	"4839265".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/14 13:47
S2	2	"6083485".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 11:22
S3	2	"6258340".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 11:23
S4	2	"6114350".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 11:33
S5	2	"6159657".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 11:33
S6	2	"4871656".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:25

EAST Search History

S7	2	"5298379".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:28
S8	2	"5672332".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:28
S9	2	"5672333".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:29
S10	2	"5709845".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:29
S11	2	"5723204".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:30
S12	2	"5863753".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:30
S13	2	"6663847".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:32
S14	2	"20030202941".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:33
S15	2	"6887854".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:36
S16	2	"20040213740".pn.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	OFF	2006/08/10 13:36

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 NEWS  5  MAY 10   CA/CAplus enhanced with 1900-1906 U.S. patent records
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 NEWS  7  MAY 19   Derwent World Patents Index to be reloaded and enhanced
 NEWS  8  MAY 30   IPC 8 Rolled-up Core codes added to CA/CAplus and
                   USPATFULL/USPAT2
 NEWS  9  MAY 30   The F-Term thesaurus is now available in CA/CAplus
 NEWS 10  JUN 02   The first reclassification of IPC codes now complete in
                   INPADOC
 NEWS 11  JUN 26   TULSA/TULSA2 reloaded and enhanced with new search and
                   and display fields
 NEWS 12  JUN 28   Price changes in full-text patent databases EPFULL and PCTFULL
 NEWS 13  JUl 11   CHEMSAFE reloaded and enhanced
 NEWS 14  JUl 14   FSTA enhanced with Japanese patents
 NEWS 15  JUl 19   Coverage of Research Disclosure reinstated in DWPI
 NEWS 16  AUG 09   INSPEC enhanced with 1898-1968 archive

 NEWS EXPRESS  JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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DICTIONARY FILE UPDATES: 13 AUG 2006 HIGHEST RN 901009-82-3

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L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR
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=> s l1
SAMPLE SEARCH INITIATED 13:29:49 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 196 TO ITERATE

100.0% PROCESSED 196 ITERATIONS 50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 3081 TO 4759
PROJECTED ANSWERS: 1743 TO 3057

L2 50 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 13:30:04 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 3895 TO ITERATE

100.0% PROCESSED 3895 ITERATIONS 2233 ANSWERS
SEARCH TIME: 00.00.01

L3 2233 SEA SSS FUL L1

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FILE LAST UPDATED: 13 Aug 2006 (20060813/ED)

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=> s l3
L4        2536 L3

=> s l4 and imag?
        461608 IMAG?
L5         462 L4 AND IMAG?

=> s l5 and (angio? or tumo?)
        117693 ANGIO?
        437617 TUMO?
L6          84 L5 AND (ANGIO? OR TUMO?)

=> d l6 ibib abs 70-84

L6   ANSWER 70 OF 84  CAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        1999:645029  CAPLUS
DOCUMENT NUMBER:         132:134170
TITLE:                   Labeled carcinoembryonic antigen antibodies excitable
                         by infrared rays: a novel diagnostic method for micro
                         cancers in the digestive tract
AUTHOR(S):               Muguruma, Naoki; Ito, Susumu; Bando, Terumi; Taoka,
                         Satoko; Kusaka, Yoshihiro; Hayashi, Shigehito;
                         Ichikawa, Soichi; Matsunaga, Yuko; Tada, Yoshie;
                         Okamura, Seisuke; Ii, Kunio; Imaizumi, Katsuichi;
                         Nakamura, Kazunari; Takesako, Kazuhiro; Shibamura,
                         Seiichi
CORPORATE SOURCE:        Second Department of Internal Medicine, School of
                         Medicine, The University of Tokushima, Tokushima,
                         770-8503, Japan
SOURCE:                  Internal Medicine (Tokyo) (1999), 38(7), 537-542
                         CODEN: IEDIEP; ISSN: 0918-2918
PUBLISHER:               Japanese Society of Internal Medicine
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   An Indocyanine Green derivative (ICG-sulfo-OSu) was used as the labeling
     substance for monoclonal antibodies, and a fluorescence imaging
     system appropriate for ICG-sulfo-OSu excitable by IR rays (IR) was
     developed.  The goal of this study was to demonstrate antibody labeling at
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the tissue level using this new imaging system. ICG-sulfo-OSu labeled mouse anti-human carcinoembryonic antigen (CEA) monoclonal antibody, a newly developed imaging system, and an IR ray microscope were employed in this experiment Paraffin sections of human colon cancer previously proven to have cross-reactivity to anti-CEA antibody were examined Pos. staining was seen as a brownish discoloration of oxidized 3,3'-diaminobenzidine tetrahydrochloride (DAB) in sections that reacted with ICG-sulfo-OSu-labeled anti-CEA antibody, and the fluorescence was well-matched with the oxidized DAB-pos. sites. Specific antibodies labeled with ICG-sulfo-OSu have significant affinity to cancer cells and seem to reflect sufficient amts. of fluorescence by IR to be useful in a system for the endoscopic detection of micro cancers using the immunohistochem. staining method.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 71 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:527837 CAPLUS

DOCUMENT NUMBER: 132:134143

TITLE: New contrast agents for optical imaging: acid-cleavable conjugates of cyanine dyes with biomolecules

AUTHOR(S): Licha, Kai; Becker, Andreas; Kratz, Frank; Semmler, Wolfhard

CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freien Univ. Berlin, Berlin, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1999), 3600(Biomedical Imaging: Reporters, Dyes, and Instrumentation), 29-35
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The investigation of cyanine dyes as contrast agents in optical tumor imaging has been a focus of our recent work. We have shown that i.v. injected hydrophilic indotricarbocyanine derivs. enable tumor detection by fluorescence imaging and by frequency-domain absorption spectroscopy. Our current objective is to extend this approach by conjugating these dyes with specific biomols. in order to enhance targetability and to introduce acid-cleavable links that enable dye release in acidic cell compartments. Accordingly, we have synthesized cyanine dyes which contain different acid-cleavable hydrazone links and which were coupled to peptides, proteins and antibodies. We have studied the release of the dyes under various pH conditions. Our results show that dye release from transferrin increased under acidic conditions, while at neutral pH the stability was higher. Addnl., we observed pH-dependent fluorescence enhancement during cleavage. Cellular fluorescence microscopy expts. indicated that intracellular trapping is possible. In conclusion, cyanine dyes bound to biomols. by acid-cleavable bonds could act as promising optical contrast agents. Further work will include optimization of release rates by chemical modification and in vivo imaging studies.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 72 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:501861 CAPLUS

DOCUMENT NUMBER: 132:75420

TITLE: Measurement of x-ray attenuation coefficients of aqueous solutions of indocyanine green and glycated chitosan

AUTHOR(S): Xu, Fang; Liu, Hong; Wu, Xizeng; Jiang, Hangyi; Nordquist, Robert E.; Chen, Wei R.

CORPORATE SOURCE: Department of Radiology and Biomedical Engineering,

University of Virginia, Charlottesville, VA, 22908, USA
SOURCE: Medical Physics (1999), 26(7), 1371-1374
CODEN: MPHYA6; ISSN: 0094-2405
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We report our exptl. results of measurements of x-ray attenuation coeffs. of aqueous solns. of a light absorbing dye, indocyanine green, and an immunoadjuvant, glycated chitosan. In the treatment of metastatic tumors in rats using a novel laser immunotherapy these solns. were administered in situ. The x-ray attenuation data of the solns. are essential to development of an x-ray digital imaging system for monitoring the administration of the solution, as well as for the distribution and the diffusion of the solution in tumors and in surrounding tissue. The composition of the solns., the measurement system configuration, and the technique used to determine the attenuation coeffs. are described. The exptl. results show that glycated chitosan has a higher attenuation coefficient compared to indocyanine green and water. Our exptl. data proved that, even at low concns., the x-ray attenuation through these aqueous solns. could be differentiated. Therefore, a digital x-ray imaging technique can be used effectively in monitoring and controlling the intratumor diffusion and distributions of these solns.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 73 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:387396 CAPLUS
DOCUMENT NUMBER: 131:197808
TITLE: Evaluation of the human choroidal melanoma rabbit model for studying microcirculation patterns with confocal ICG and histology
AUTHOR(S): Mueller, Authur J.; Folberg, Robert; Freeman, William R.; Bartsch, Dirk-Uwe; Bergeron-Lynn, Germaine; Mehaffey, Mary G.; Kan-Mitchell, June; Huang, Xiuqing; Jian, Gong; Avila, Cesar; Taskintuna, Ibrahim; Cheng, Lingyun; Wang, Jim
CORPORATE SOURCE: Department of Ophthalmology, Shiley Eye Center, University of California, San Diego, La Jolla, CA, 92093-0946, USA
SOURCE: Experimental Eye Research (1999), 68(6), 671-678
CODEN: EXERA6; ISSN: 0014-4835
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The aim of this study was to develop consistently focal elevated choroidal masses of human choroidal melanoma in immunosuppressed rabbits and to correlate the visualization of prognostically significant microcirculation patterns from confocal indocyanine green angiog. with histol. microcirculation patterns. A human choroidal melanoma cell line (OCM1) was implanted in the choroid of 40 rabbit eyes using three different techniques: transscleral choroidal injection of a cell suspension, injection of a cell suspension in a surgically induced cyclodialysis cleft, and implantation of solid tumor fragments in a surgically induced cyclodialysis cleft. The rabbits were immunosuppressed with daily injections of Cyclosporin A to prevent host vs. graft reaction. The eyes were studied weekly with indirect ophthalmoscopy and fundus photog. to monitor tumor growth and indocyanine green angiog.
using a confocal scanning laser ophthalmoscope to identify microcirculation patterns in vivo and correlate these findings with the histol. demonstration of tumor microcirculation patterns. A tumor mass was identified by indirect ophthalmoscopy in 16 of the 40 implanted rabbit eyes (40%). Each of these tumors was confirmed histol. to represent a focal elevated choroidal mass. All 16

elevated choroidal masses grow in eyes in which solid tumor fragments were implanted. In total, a melanoma was identified histol. in 28 of the implanted 40 eyes (70%). In addition to the 16 eyes where the melanoma appeared as a focal elevated choroidal mass, 4 eyes contained a focal elevated mass in the sclera and 8 eyes contained a flat choroidal tumor. Histol., microcirculation patterns were identified only in the 16 eyes with focal elevated choroidal masses. Confocal indocyanine green angiog. imaged microcirculation patterns in 13 of these 16 eyes (81%). The surgical implantation of small solid fragments of human choroidal melanoma in immunosuppressed rabbit eyes provides the best method to consistently obtain focal elevated choroidal masses. These focal elevated choroidal masses resemble booth the localization and the growth pattern of choroidal melanomas in humans. In addition, they also contain microcirculation patterns similar to those seen in humans that are detectable with confocal indocyanine green angiog. The use of indocyanine green angiog. with this animal model may be especially useful in designing and evaluating anti-microcirculation treatments directed at uveal melanoma. (c) 1999 Academic Press.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 74 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:183776 CAPLUS

DOCUMENT NUMBER: 130:224351

TITLE: Polyoxyhydrocarbyl-related products for fluorescence assays

INVENTOR(S): Dandliker, Walter B.; Devlin, Robert Francis; Arrhenius, Peter Olaf Gustaf; Hsu, Mao-lin

PATENT ASSIGNEE(S): Hyperion, Inc., USA

SOURCE: U.S., 45 pp., Cont.-in-part of U.S. Ser. No. 346,098. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5880287	A	19990309	US 1995-476544	19950606
US 5403928	A	19950404	US 1991-701449	19910515
US 5641878	A	19970624	US 1994-333603	19941102
US 5677199	A	19971014	US 1994-346098	19941129
CA 2223418	AA	19961219	CA 1996-2223418	19960604
CA 2223418	C	20031007		
WO 9641144	A2	19961219	WO 1996-US8935	19960604
WO 9641144	A3	19970206		
W: CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CN 1198816	A	19981111	CN 1996-196037	19960604
JP 2001517296	T2	20011002	JP 1997-501385	19960604
US 5919922	A	19990706	US 1997-865812	19970530
US 6060598	A	20000509	US 1997-874820	19970613

PRIORITY APPLN. INFO.:		
US 1990-524212	B2	19900515
US 1991-701449	A3	19910515
US 1991-701465	B1	19910515
US 1994-333603	A2	19941102
US 1994-346098	A2	19941129
US 1990-523601	B1	19900515
US 1995-476544	A	19950606
WO 1996-US8935	W	19960604

AB Fluorescent dyes which are free of aggregation and serum binding, suitable as marker components for applications such as fluorescence immunoassays, in vivo imaging and in vivo tumor therapy, comprise a

polymethine fluorophore moiety bonded to ≥1 polyoxyalkylene or carbohydrate moiety. For example, p-BrC6H4OH is etherified with Me(OCH2CH2)nOTs, the product treated with BuLi and acylated with p-Me2NC6H4COCl, and the resulting benzophenone treated with Ph3PCH2 Br to give 4-Me2NC6H4C(:CH2)C6H4(OCH2CH2)nOMe-4, which can be coupled with HC(OEt)3 or MeOCH:C(OMe)2 to give the penta- or heptamethine compound, resp.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 75 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:93134 CAPLUS

DOCUMENT NUMBER: 128:227990

TITLE: Tumor detection with cyanine dye-poly(ethylene glycol) conjugates as contrast agents for near-infrared imaging

AUTHOR(S): Riefke, Bjorn; Licha, Kai; Nolte, Dirk; Ebert, Bernd; Rinneberg, Herbert; Semmler, Wolfhard

CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, 14050, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3196(Optical and Imaging Techniques for Biomonitoring III), 103-110
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The influence of the mol. weight of cyanine dye-poly(ethylene glycol) (PEG) conjugates on their pharmacokinetic behavior and on the contrast between malignant and normal tissue in fluorescence images was studied. PEG conjugates with a mol. weight ranging from 1800 to 40000 g mol-1 were investigated in a rat model. A tunable, pulsed, solid-state laser system and an intensified CCD camera served to record fluorescence images of different tumor-bearing mice and rats. The time window of increased contrast between tumor and normal tissue in fluorescence images can be adjusted by the mol. weight of PEG residues. Furthermore, we were able to demonstrate the visualization of s.c. blood vessels.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 76 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:93133 CAPLUS

DOCUMENT NUMBER: 128:218365

TITLE: Synthesis and characterization of cyanine dye - poly(ethylene glycol) conjugates as contrast agents for in vivo fluorescence imaging

AUTHOR(S): Licha, Kai; Riefke, Bjorn; Semmler, Wolfhard

CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, D-14050, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3196(Optical and Imaging Techniques for Biomonitoring III), 98-102
CODEN: PSISDG; ISSN: 0277-786X

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Cyanine dyes are promising near-IR contrast agents because of their high molar absorption between 700 and 1000 nm, minimal phototoxicity, and convenient synthetic availability. It is known that the derivatization of drugs or contrast agents with polyethylene glycol residues leads to enhanced retention in tumor tissue. The purpose of this study was to generate derivs. of an indotricarbocyanine dye with improved pharmacol. properties enabling in vivo fluorescence detection of tumors. Several hydrophilic indotricarbocyanine-polyethylene

glycol conjugates of different mol. weight were synthesized and characterized physicochem. (partition coeffs., mass distribution) and photophys. (absorption and fluorescence properties in physiol. media) in order to test their applicability as near IR contrast media.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 77 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:769111 CAPLUS
DOCUMENT NUMBER: 128:85932
TITLE: Near-infrared fluorescence tracer and fluorescence imaging method for clinical diagnosis
INVENTOR(S): Jibu, Masataka; Sakatani, Kaoru
PATENT ASSIGNEE(S): Hamamatsu Photonics K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09309845	A2	19971202	JP 1996-149959	19960521

PRIORITY APPLN. INFO.: JP 1996-149959 19960521

AB Near-IR fluorescence tracer for clin. diagnosis, especially for tumor imaging comprises near-IR fluorescence colorants i.e. indocyanine green-type colorants conjugated with fat-soluble substances i.e. high-d. lipoprotein and test substance-recognizing materials i.e. antibodies. A fluorescence imaging method involves: injection of the Near-IR fluorescence tracer into patients, subjecting to exciting irradiation of test subjects and diagnosis imaging.

L6 ANSWER 78 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:393527 CAPLUS
DOCUMENT NUMBER: 127:78087
TITLE: Fluorescence properties of indocyanin green - part 1.: in-vitro study with micelles and liposomes
AUTHOR(S): Devoisselle, J.M.; Soulie, S.; Mordon, S.; Desmettre, T.; Maillols, H.
CORPORATE SOURCE: Laboratoire de Technique Pharmaceutique Industrielle, U.F.R. des Sciences Pharmaceutiques, Montpellier, 34060, Fr.
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1997), 2980(Advances in Fluorescence Sensing Technology III), 453-460
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB ICG is a tricarbocyanin fluorescent dye used in angiog. Several reports point out the advantage of ICG to fluoresce in the near IR wavelength range enabling the imaging of deep tissues. If the fluorescence characteristics of ICG in buffer or protein solns. are described in vitro, little is known concerning the physicochem. properties of ICG. This study aims to evaluate the physicochem. and fluorescence spectral characteristics of ICG in aqueous solution and in presence of micelles and liposomes. ICG exhibits a tensioactive property and when incubated with micelles and liposomes tends to be aggregated or embedded at the interface. The fluorescence is very low in the aggregated form and is very high when ICG is embedded at the interface and a shift of the emission peak toward longer wavelength is observed Such in vitro study could contribute to a better understanding of some observed unusual properties of ICG in vivo.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 79 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:393513 CAPLUS
DOCUMENT NUMBER: 127:77970
TITLE: Fluorescence properties of indocyanin green / part 2: in vitro study related to in vivo behavior
AUTHOR(S): Devoisselle, J.M.; Soulie, S.; Maillols, H.; Desmettre, T.; Mordon, S.
CORPORATE SOURCE: Laboratoire de Technique Pharmaceutique Industrielle, U.F.R. des Sciences Pharmaceutiques, Montpellier, 34060, Fr.
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1997), 2980(Advances in Fluorescence Sensing Technology III), 293-302
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The fluorometric properties of indocyanin green has been largely described. Salts, proteins, lipoproteins have been mentioned as modifying the fluorescence characteristics of ICG. We have recently observed that ICG is able to bind at the interface of model membranes. In this study, we re-investigated the spectral properties of ICG in biol. media. The fluorescence quenching curves of ICG in the water, protein solution and whole blood are very similar but the absorption characteristics of ICG are quite different from one medium to another. ICG displays an aggregative behavior in water and serum depending on its concentration but we observed no modification of the absorption spectra in blood. This quenching property is also observed in vivo using blood sampling. These results show that the spectral behavior of ICG in biol. media may be taken in account when fluorescence measurements are performed.
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 80 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:132797 CAPLUS
DOCUMENT NUMBER: 126:145372
TITLE: Polyoxyhydrocarbylene-modified marker components for use in fluorescence immunoassays
INVENTOR(S): Dandliker, Walter Beach; Devlin, Robert Francis; Arrhenius, Peter Olaf Gustaf; Hsu, Mao-Lin
PATENT ASSIGNEE(S): Hyperion, Inc., USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9641144	A2	19961219	WO 1996-US8935	19960604
WO 9641144	A3	19970206		
W: CA, CN, JP				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5880287	A	19990309	US 1995-476544	19950606
JP 2001517296	T2	20011002	JP 1997-501385	19960604

PRIORITY APPLN. INFO.:

US 1995-476544	A	19950606
US 1990-524212	B2	19900515
US 1991-701449	A3	19910515
US 1991-701465	B1	19910515
US 1994-333603	A2	19941102

US 1994-346098 A2 19941129
WO 1996-US8935 W 19960604

AB Fluorescent dyes comprising a fluorophore moiety which comprises a luminescent substantially planar mol. structure with excitation wavelength ≥500 nm, bonded to one or more polyoxyhydrocarbylene moieties, are free of aggregation and serum binding and thus suitable for applications such as fluorescence immunoassays, in vivo imaging and in vivo tumor therapy. Immunoassay methods utilizing these dyes are thus particularly useful for the assay of biol. fluids, such as serum, plasma, whole blood and urine.

L6 ANSWER 81 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:77034 CAPLUS
DOCUMENT NUMBER: 126:209020
TITLE: In vivo characterization of cyanine dyes as contrast agents for near-infrared imaging
AUTHOR(S): Riefke, B.; Licha, K.; Semmler, W.; Nolte, D.; Ebert, B.; Rinneberg, H.
CORPORATE SOURCE: Institut fuer Diagnostikforschung GmbH, Freie Universitaet Berlin, Berlin, 14050, Germany
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1996), 2927(Optical and Imaging Techniques for Biomonitoring II), 199-208
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In this study indotricarbocyanines were investigated in vivo as near-IR contrast agents. The known dye Indocyanine Green (ICG) has several disadvantages regarding its use in near-IR imaging. ICG has a very short plasma half-life, limited tolerability and is unstable in aqueous solns. Therefore, several indotricarbocyanine dyes, structurally related to ICG but with different hydrophilicities and physicochem. properties, were synthesized. The tolerability of synthesized dyes was tested in mice. The pharmacokinetic behavior and elimination characteristics were studied in a rat model. The in vivo imaging properties of synthesized dyes were investigated using a tunable, pulsed, solid state laser system for excitation and an intensified CCD camera for fluorescence imaging of different tumor-bearing nude mice models and mammary-carcinoma-bearing rat models. The dye-specific fluorescence emission was followed at different times after dye administration. The results are demonstrated in comparison to Indocyanine Green. Synthesized hydrophilic indotricarbocyanine dyes had longer plasma half-lives and increasing renal elimination, corresponding to higher hydrophilicity. Tolerability in mice was increased up to 60-fold compared to ICG. Increased fluorescence emission in tumors was observed for several dyes 24 h p.i. in the tumor models studied, whereas ICG showed no tumor fluorescence signal under the same conditions.

L6 ANSWER 82 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:605487 CAPLUS
DOCUMENT NUMBER: 125:242376
TITLE: Particulate contrast media for in vivo imaging based on light transmission or reflection
INVENTOR(S): Klaveness, Jo; Fuglaas, Bjorn; Rongved, Paal; Johannesen, Edvin; Henrichs, Paul Mark; Gunther, Wolfgang Hans Heinrich; Bacon, Edward Richard; Toner, John Luke; McIntire, Gregory Lynn
PATENT ASSIGNEE(S): Nycomed Imaging A/S, Norway; Cockbain, Julian Roderick Michaelson
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9623524	A1	19960808	WO 1996-GB222	19960202
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE				
CA 2212257	AA	19960808	CA 1996-2212257	19960202
AU 9645458	A1	19960821	AU 1996-45458	19960202
BR 9607012	A	19971028	BR 1996-7012	19960202
EP 808175	A1	19971126	EP 1996-901441	19960202
EP 808175	B1	20020731		
R: DE, DK, ES, FR, GB, IT, SE, IE				
CN 1179108	A	19980415	CN 1996-192667	19960202
JP 10513175	T2	19981215	JP 1996-523352	19960202
ES 2182960	T3	20030316	ES 1996-901441	19960202
FI 9703208	A	19971001	FI 1997-3208	19970801
NO 9703542	A	19971001	NO 1997-3542	19970801
US 2001022963	A1	20010920	US 2000-732917	20001211
US 6540981	B2	20030401		
US 2003157021	A1	20030821	US 2002-286988	20021101
US 7014839	B2	20060321		

PRIORITY APPLN. INFO.:		
GB 1995-2065	A	19950202
WO 1996-GB222	W	19960202
US 1997-984771	A1	19971204
US 1997-875645	B2	19971217
US 2000-732917	A1	20001211

AB Particulate materials (including gas bubbles, liposomes, etc.) are provided for use as contrast agents for in vivo light imaging by transmission, reflection, scattering, fluorescence, or phosphorescence. Thus, multilamellar liposomes containing iodixanol were injected into rats bearing hepatoma 9L implants. The liposomes enhanced light scattering in the tumor at 780 nm by >4-fold over the background signal.

L6 ANSWER 83 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:204983 CAPLUS
DOCUMENT NUMBER: 124:311510
TITLE: Intravital near-infrared fluorescence microscopy with indocyanine green to visualize deep tissue microcirculation
AUTHOR(S): Ohshima, Norio; Homma, Satoshi; Yanagi, Kennichi; Sato, Masaaki; Ito, Takayuki; Wayland, Harold
CORPORATE SOURCE: Institute Basic Medical Sciences, University Tsukubo, Tsukuba, 305, Japan
SOURCE: Tissue Perfusion and Organ Function (1996), 15-27. Editor(s): Kamada, Takenobu; Shiga, Takeshi; McCuskey, Robert S. Elsevier: Amsterdam, Neth.
CODEN: 62NYAN
DOCUMENT TYPE: Conference
LANGUAGE: English

AB Indocyanine green (ICG) is a dye that emits fluorescence in the near-IR region. Since light of longer wavelengths is less scattered by tissue than shorter ones, ICG fluorescence microscopy is expected to be a promising method to provide more detailed information on deep tissue blood circulation than other fluorochromes, say, fluorescein. We constructed a near-IR microscope system to enable intravital observation and proper detection of ICG fluorescence. By in vitro calibration expts., it was confirmed that the intensity of fluorescence showed a maximum value over an ICG concentration range from 100 μg/mL to 300 μg/mL. Microvessels of the

skeletal muscles and disseminated tumor in the mesentery of rats were subjected to intravital microscopic observation using this system. Microvascular images with a good contrast against background were obtained.

L6 ANSWER 84 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:111088 CAPLUS
DOCUMENT NUMBER: 124:194200
TITLE: Effect of indocyanin green formulation on blood clearance and in vivo fluorescence kinetic profile of skin.
AUTHOR(S): Devoisselle, J.M.; Soulie, S.; Mordon, S.; Mestres, G.; Desmettre, T.; Maillols, H.
CORPORATE SOURCE: Laboratoire de Technique Pharmaceutique Industrielle, U.F.R. des Sciences Pharmaceutiques, Montpellier, 34060, Fr.
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1995), 2627, 100-8
CODEN: PSISDG; ISSN: 0277-786X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Indocyanin green has been used to measure cardiac and liver functions. More recently, it has been proposed as a contrast agent in ophthalmic angiog., tumor imaging and as an IR absorbing dye in the context of laser-induced thermal damage of blood vessels. The aim of the study is to overcome the disadvantage of a very short blood half-time and to participate to a better confinement in blood vessels. Indocyanin green was administered i.v. to Wistar rats at a 7.5 mg/kg dose. Formulations consist in indocyanin green aqueous solution and o/w emulsion. Blood samples were collected and analyzed by spectrophotometry. Fluorescence was recorded in vivo by spectrofluorometry using an optic fiber coupled to an optical multichannel analyzer. The fiber optic was placed at a 4 mm distance from the skin surface. Results show that aqueous solution of indocyanin green leads to a rapid blood clearance. The administration of ICG emulsion has the advantage of increasing the half-time and the residence time of indocyanin green in skin. It may be noted that however the formulation is, the observed blood clearance profiles are quite different from the tissue fluorescence kinetic profiles. The dye could have a longer residence time (20-60 min. plateau phase). Moreover, a shift of the maximum emission peak is noted after i.v. administration. The study of ICG fluorescence in presence of model membranes shows that ICG is able to interact with phospholipid bilayers. These findings may be interesting for therapeutic applications of indocyanin green requiring a high level of dye in tissues for a great period of time and participate to the knowledge of ICG behavior in vivo.

=> s l6 and sulf?
1722758 SULF?
L7 12 L6 AND SULF?

=> d l7 ibib abs 1-12

L7 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:681452 CAPLUS
DOCUMENT NUMBER: 145:130695
TITLE: Conjugates for dual imaging and radiochemotherapy: composition, manufacturing, and applications
INVENTOR(S): Yang, David J.; Yu, Dongfang; Chanda, Mithu; Azhdarinia, Ali; Oh, Changsok; Kim, E. Edward
PATENT ASSIGNEE(S): Board of Regents, The University of Texas System, USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006074272	A2	20060713	WO 2006-US269	20060105

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2005-641559P P 20050105

AB Compns. and methods for dual imaging and for dual chemotherapy and radiotherapy are disclosed. More particularly, the invention concerns compds. comprising the structure X1-Y-X2, wherein Y comprises two or more carbohydrate residues covalently attached to one another, X1 and X2 are diagnostic or therapeutic moieties covalently attached to Y, provided that when Y does not comprise a glucosamine residue, X1 and X2 are diagnostic moieties. Conjugates consisting of a carbohydrate backbone to which diagnostic and/or therapeutic moieties are attached are used as tumor-targeting agents with dual diagnostic (such as MRI + PET) and dual therapeutic (chemotherapy + radiotherapy) capabilities. The present invention also concerns methods of synthesis of these conjugates, application of such compds. for dual imaging and treatment of hyperproliferative disease, and kits for preparing a radiolabeled therapeutic or diagnostic compound

L7 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:343384 CAPLUS
DOCUMENT NUMBER: 144:376467
TITLE: Contrast agent formulations for the visualization of the lymphatic system
INVENTOR(S): De Haen, Christoph
PATENT ASSIGNEE(S): Bracco Imaging SpA, Italy
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006037803	A1	20060413	WO 2005-EP55071	20051006

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

KG, KZ, MD, RU, TJ, TM
EP 1655040 A1 20060510 EP 2004-24102 20041008
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR
PRIORITY APPLN. INFO.: EP 2004-24102 A 20041008
AB The present invention relates to the field of diagnostic imaging and provides compns. of ultrasound contrast agents, particularly gas-filled microvesicles suspensions, in combination with vital dyes. The compns. of the invention are advantageously used in the visualization of the lymphatic system, particularly for the detection of the sentinel lymph node or nodes of a tumor.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:100738 CAPLUS
DOCUMENT NUMBER: 144:198849
TITLE: Novel dosage form comprising modified-release and immediate-release active ingredients
INVENTOR(S): Vaya, Navin; Karan, Rajesh Singh; Sadanand, Sunil; Gupta, Vinod Kumar
PATENT ASSIGNEE(S): India
SOURCE: U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part of U.S. Ser. No. 630,446.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2006024365	A1	20060202	US 2005-134633	20050519
IN 193042	A	20040626	IN 2002-MU697	20020805
US 2004096499	A1	20040520	US 2003-630446	20030729

PRIORITY APPLN. INFO.:
IN 2002-MU697 A 20020805
IN 2002-MU699 A 20020805
IN 2003-MU80 A 20030122
IN 2003-MU82 A 20030122
US 2003-630446 A2 20030729

AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.

L7 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:182691 CAPLUS
DOCUMENT NUMBER: 142:285150
TITLE: Cyclic peptide and imaging compound compositions and uses for targeted imaging and therapy
INVENTOR(S): Li, Chun; Ke, Shi; Wang, Wei
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 92 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005019247	A2	20050303	WO 2004-US26220	20040813
WO 2005019247	A3	20050519		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005069494	A1	20050331	US 2004-918009	20040813
PRIORITY APPLN. INFO.:			US 2003-495658P	P 20030815
			US 2004-918009	A 20040813

OTHER SOURCE(S): MARPAT 142:285150

AB The present invention relates to novel cyclic peptides that may be conjugated with imaging agents, including novel imaging agents. Specifically, it includes c(KRGDf) NIR imaging compns. and novel cyclic HWGFTL polypeptides which may be used inter alia in NIR, MRI and nuclear imaging as well as therapy. Addnl., the invention includes novel imaging agents, such as TS-ICG derivs. The invention also relates to methods of making and using such compds. Such uses include both pre-operative and intraoperative detection of tumor cells and treatment monitoring.

L7 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:14149 CAPLUS
DOCUMENT NUMBER: 142:114468
TITLE: Preparation of macrocyclic cyanine and indocyanine bioconjugates for use as contrast agents
INVENTOR(S): Achilefu, Smuel; Ye, Yunpeng
PATENT ASSIGNEE(S): Washington University, USA
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000218	A2	20050106	WO 2004-US17142	20040601

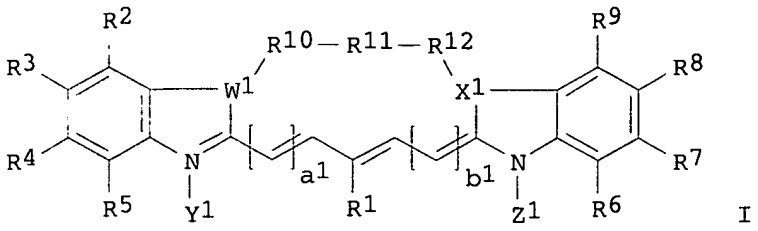
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:			US 2003-474453P	P 20030531

OTHER SOURCE(S): MARPAT 142:114468

GI



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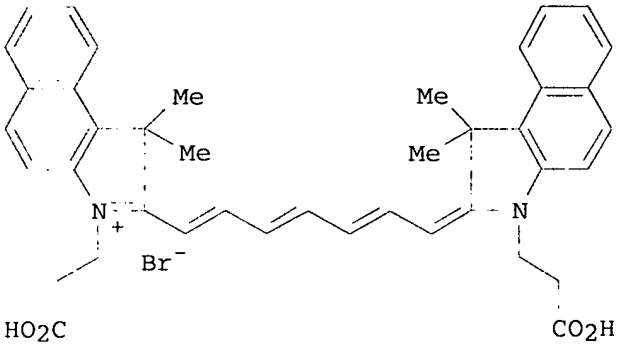


II

AB The sensitivity and specificity of the optical modality can be enhanced by the use of highly absorbing compds. as contrast agents. Novel macrocyclic cyanine and indocyanine bioconjugates, e.g., I [a1, b1 are 0-7; W1, X1 are independently H, CRa, NRb, P, P(O)Rc; Y1, Z1 are independently H, CRaRb, alkyl, aryl, alkoxy, carboxyalkyl, (CH2)1-20CONRb-Bm (Bm is any active peptide, protein, antibody, oligosaccharide, drugs, etc.), saccharides, peptides, peptidomimetics, etc.; R1-R9 or Ra-Rc are defined in the same manner as Bm or are independently H, alkyl, aryl, alkoxy, sulfonate, phosphonate, a peptide, etc. or two or more R1-R9 may combine to form an aromatic derivative; R10-R12 may be a hydrophilic or lipophilic linker or a bioactive domain defined in the same manner as Bm or may be combined as a functional unit defined in the same manner as Bm], that absorb and emit light in the near IR region of electromagnetic spectrum are disclosed. These compds. are especially useful for endoscopic, localized photoacoustic, and sonofluorescence imaging, detection and therapy of tumors and other abnormalities. Thus, indocyanine dye II (cypate) was prepared by reaction of 1,1,2-trimethyl-1H-benz[e]indole with 3-bromopropanoic acid and glutaconaldehyde dianilide hydrochloride. The UV-visible and emission spectra of II and peptide conjugate cyclo(cypate-octreotide-Lys) were recorded.

L7 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1036400 CAPLUS
DOCUMENT NUMBER: 142:28134
TITLE: Receptor-avid exogenous optical contrast and therapeutic agents
INVENTOR(S): Achilefu, Samuel; Rajagopalan, Raghavan; Dorshow, Richard B.; Bugaj, Joseph; Periasamy, Muthunadar P.
PATENT ASSIGNEE(S): Mallinckrodt Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 35 pp., Cont.-in-part of U.S. Ser. No. 864,011.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 2004241095	A1	20041202	US 2004-800531	20040315
US 6395357	B1	20020528	US 2000-484322	20000118
US 2002156117	A1	20021024	US 2001-864011	20010523
US 6706254	B2	20040316		
WO 2005089813	A2	20050929	WO 2005-US7429	20050309

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2005281741	A1	20051222	US 2005-75792	20050309
US 2005271592	A1	20051208	US 2005-146377	20050606

PRIORITY APPLN. INFO.:

US 2000-484322	A2 20000118
US 2001-864011	A2 20010523
US 2004-800531	A 20040315
US 2005-75792	A3 20050309

OTHER SOURCE(S): MARPAT 142:28134

AB Cyanine dye bioconjugates useful for diagnostic imaging and therapy are disclosed. The conjugates include several cyanine dyes with a variety of bis- and tetrakis (carboxylic acid) homologes. The compds. are be conjugated to bioactive peptides, carbohydrates, hormones, drugs, or other bioactive agents. The small size of the compds. allows more favorable delivery to tumor cells as compared to larger mol. weight imaging agents. The various dyes are useful over the range of 350 to 1,300 nm, the exact range being dependent upon the particular dye. The use of a biocompatible organic solvent such as dimethylsulfoxide helps to maintain the fluorescence of the compds. The inventive compds. are useful for diagnostic imaging and therapy, in endoscopic applications for the detection of tumors and other abnormalities, for localized therapy, for photoacoustic tumor imaging, detection and therapy, and for sonofluorescence tumor imaging, detection and therapy.

L7 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:820180 CAPLUS

DOCUMENT NUMBER: 141:19863

TITLE: Basic study of an agent for reinforcement of near-infrared fluorescence on tumor tissue

AUTHOR(S): Inayama, K.; Ito, S.; Muguruma, N.; Kusaka, Y.; Bando, T.; Tadatsu, Y.; Tadatsu, M.; Ii, K.; Shibamura, S.; Takesako, K.

CORPORATE SOURCE: Second Department of Internal Medicine, University of Tokushima School of Medicine, Tokushima City, 770-8503, Japan

SOURCE: Digestive and Liver Disease (2003), 35(2), 88-93
CODEN: DLDIFK; ISSN: 1590-8658

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An indocyanine green derivative (ICG-sulfo-OSu) and agents for reinforcement of IR fluorescence, which can be used as an IR fluorescent labeling substance suitable far detection of microlesions by an IR fluorescence endoscope, have been developed. The study aims were to confirm the ability of a reinforcement agent, as well as imaging processing, to intensify fluorescence from the labeled antibody on immunohistochem. staining. ICG-sulfo-OSu-labeled MUC1 antibody and an IR fluorescence imaging system were employed in the

present study. Paraffin sections of gastric cancer were stained with anti-MUC1 antibody by the avidin-biotinylated peroxidase complex method. Among the pos. specimens, three cases were used for IR imaging anal. Octylglucoside was used as a reinforcement agent. The incubation of paraffin sections with ICG-sulfo-OSu-labeled MUC1 antibody resulted in pos. staining of the tumor sites by an IR fluorescence imaging system, and the intensity of fluorescence was increased depending on the concentration of octylglucoside and grade of imaging processing. A reinforcement agent, and image processing, intensify a labeled antibody excitable by IR fluorescence in tumor sections and can generate a strong enough fluorescent signal to detect small cancers when examined with an IR fluorescence endoscope.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:796808 CAPLUS
DOCUMENT NUMBER: 139:293424
TITLE: Near-IR fluorescent cyanine dyes and their biological use
INVENTOR(S): Weissleder, Ralph; Tung, Ching-Hsuan; Lin, Yuhui
PATENT ASSIGNEE(S): The General Hospital Corporation, USA
SOURCE: PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003082988	A1	20031009	WO 2003-US9879	20030331
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003228418	A1	20031013	AU 2003-228418	20030331
US 2005249668	A1	20051110	US 2005-496239	20050705
PRIORITY APPLN. INFO.:			US 2002-368962P P	20020329
			WO 2003-US9879 W	20030331

AB The invention includes new water-soluble NIR fluorochromes, e.g., for biomedical imaging. The new dyes are highly stable, asym. cyanine compds., characterized by (1) superior chemical stability, (2) excellent optical properties (e.g., high quantum yield), (3) bio-compatibility, (4) conjugatability, and (5) ideal in-vivo imaging properties. Monoactivated hydroxysuccinimide esters of the new dyes are highly reactive with peptides, metabolites, proteins, peptide-folate conjugates, and other biol. macromols. and affinity ligands, forming stable complexes. Affinity mols. tagged with the new dyes can be used, for example, for imaging of tumors in vivo. In an example, 1,1,2-trimethyl-1,3-disulfobenzindoleninium di-K salt was treated with EtI and the product condensed with glutaconaldehyde dianil hydrochloride and Ac2O to provide an intermediate, which with 5-carboxy-1-(4-sulfobutyl)-2,3,3-trimethyl-3H-indolenine gave a near-IR dye.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:849373 CAPLUS
DOCUMENT NUMBER: 137:358081
TITLE: Diagnostic imaging compositions, their methods of synthesis, and use
INVENTOR(S): Li, Chun; Wen, Xiaoxia; Wu, Qing-Ping; Wallace, Sydney; Ellis, Lee M.
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002087498	A2	20021107	WO 2002-US12510	20020419
WO 2002087498	A3	20031030		
WO 2002087498	C1	20031211		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2444483	AA	20021107	CA 2002-2444483	20020419
US 2002197261	A1	20021226	US 2002-126369	20020419
US 2003003048	A1	20030102	US 2002-126216	20020419
EP 1389090	A2	20040218	EP 2002-766783	20020419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:

US 2001-286453P	P	20010426
US 2001-334969P	P	20011204
US 2001-343147P	P	20011220
WO 2002-US12510	W	20020419

AB Conjugate mols. comprising a ligand bonded to a polymer are disclosed. One such conjugate mol. comprises a ligand bonded to a polymer, a chelating agent bonded to the polymer, and a radioisotope chelated to the chelating agent. The conjugate mols. may be useful in detecting and/or treating tumors or biol. receptors. These conjugate mols. may be synthesized without the necessity of preactivation of the ligand using an SCN-polymer-chelating agent precursor. Conjugate mols. incorporating an annexin V ligand are particularly useful for visualizing apoptotic cells. Conjugate mols. incorporating a C225 ligand are particularly useful for targeting tumors expressing EGFR.

L7 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:545690 CAPLUS
DOCUMENT NUMBER: 135:142328
TITLE: Dendrimer precursor indocyanine dyes for imaging
INVENTOR(S): Achilefu, Samuel I.; Rajagopalan, Raghavan; Dorshow, Richard B.; Bugaj, Joseph E.
PATENT ASSIGNEE(S): Mallinckrodt Inc., USA
SOURCE: PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2001053292	A1	20010726	WO 2001-US1407		20010117
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
US 6395357	B1	20020528	US 2000-484322		20000118
EP 1250333	A1	20021023	EP 2001-942624		20010117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR					
JP 2003520868	T2	20030708	JP 2001-553766		20010117
PRIORITY APPLN. INFO.:			US 2000-484322	A	20000118
			WO 2001-US1407	W	20010117

OTHER SOURCE(S): MARPAT 135:142328

AB The sensitivity and specificity of the optical modality can be enhanced by the use of highly absorbing dyes as contrast agents. Novel indocyanine dyes that absorb and emit light in the near IR region of electromagnetic spectrum are disclosed. These dyes are useful for imaging, diagnosis and therapy of various diseased states. Particularly, the mols. of the invention are useful for optical diagnostic imaging and therapy, in endoscopic applications for the detection of tumors and other abnormalities, e.g., atherosclerotic plaques and blood clots, for localized therapy, for photoacoustic tumor imaging , detection and therapy, and for sonofluorescence tumor imaging, detection and therapy. The compns. of indocyanine dyes are prepared by conjugating the dyes to peptides or biomols. by solid phase synthesis. To prevent in vivo or in vitro fluorescence quenching of the diagnostic or therapeutic compns. of the dye mols., 1-50% of DMSO is added. For example, a bis(ethylcarboxymethyl)indocyanine dye was prepared from 1,1,2-trimethyl-[1H]-benz[e]indole and 3-bromopropanoic acid and then the dye was conjugated to Octreotate peptide.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:209951 CAPLUS
DOCUMENT NUMBER: 132:233734
TITLE: Near infrared fluorescent contrast agent and fluorescence imaging
INVENTOR(S): Miwa, Naoto; Inagaki, Michihito; Eguchi, Hiroaki; Okumura, Masafumi; Inagaki, Yoshio; Harada, Toru
PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany; Fuji Photo Film Co., Ltd.
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000016810	A1	20000330	WO 1999-EP7088	19990916
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD,				

MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

JP 2000095758	A2	20000404	JP 1998-283301	19980918
CA 2344315	AA	20000330	CA 1999-2344315	19990916
CA 2413033	AA	20000330	CA 1999-2413033	19990916
AU 9959814	A1	20000410	AU 1999-59814	19990916
AU 763991	B2	20030807		
BR 9913849	A	20010612	BR 1999-13849	19990916
EP 1113822	A1	20010711	EP 1999-969341	19990916
EP 1113822	B1	20030903		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
TR 200100746	T2	20010723	TR 2001-200100746	19990916
EE 200100162	A	20020815	EE 2001-162	19990916
JP 2002526458	T2	20020820	JP 2000-573771	19990916
TR 200202652	T2	20030321	TR 2002-200202652	19990916
JP 2003160558	A2	20030603	JP 2002-331674	19990916
JP 3507060	B2	20040315		
NZ 510019	A	20030725	NZ 1999-510019	19990916
AT 248608	E	20030915	AT 1999-969341	19990916
PT 1113822	T	20040130	PT 1999-969341	19990916
ES 2207338	T3	20040516	ES 1999-969341	19990916
CN 1515552	A	20040728	CN 2002-2002154845	19990916
BG 105337	A	20011031	BG 2001-105337	20010313
BG 107411	A	20040630	BG 2002-107411	20010313
NO 2001001338	A	20010516	NO 2001-1338	20010316
HK 1042855	A1	20051202	HK 2002-104712	20020625
NO 2002005819	A	20010516	NO 2002-5819	20021204
US 2003180221	A1	20030925	US 2002-324010	20021220
NZ 525453	A	20030926	NZ 2003-525453	20030423

PRIORITY APPLN. INFO.:

JP 1998-283301	A	19980918
JP 2000-573771	A3	19990916
NZ 1999-510019	A	19990916
WO 1999-EP7088	W	19990916
CA 1999-2344315	A3	19990918
US 2001-787394	A3	20010516

OTHER SOURCE(S): MARPAT 132:233734

AB A near IR fluorescent contrast agent comprising a compound having three or more sulfonic acid groups in a mol., and a method of fluorescence imaging comprising introducing the near IR fluorescent contrast agent of the present invention into a living body, exposing the body to an excitation light, and detecting near IR fluorescence from the contrast agent. The near IR fluorescent contrast agent of the present invention is excited by an excitation light and emits near IR fluorescence. This IR fluorescence is superior in transmission through biol. tissues. Thus, detection of lesions in the deep part of a living body has been made possible. In addition, the inventive contrast agent is superior in water solubility and low toxic, and therefore, it can be used safely.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:645029 CAPLUS
DOCUMENT NUMBER: 132:134170
TITLE: Labeled carcinoembryonic antigen antibodies excitable by infrared rays: a novel diagnostic method for micro cancers in the digestive tract
AUTHOR(S): Muguruma, Naoki; Ito, Susumu; Bando, Terumi; Taoka, Satoko; Kusaka, Yoshihiro; Hayashi, Shigehito; Ichikawa, Soichi; Matsunaga, Yuko; Tada, Yoshie;

Okamura, Seisuke; Ii, Kunio; Imaizumi, Katsuichi; Nakamura, Kazunari; Takesako, Kazuhiro; Shibamura, Seiichi

CORPORATE SOURCE: Second Department of Internal Medicine, School of Medicine, The University of Tokushima, Tokushima, 770-8503, Japan

SOURCE: Internal Medicine (Tokyo) (1999), 38(7), 537-542
CODEN: IEDIEP; ISSN: 0918-2918

PUBLISHER: Japanese Society of Internal Medicine

DOCUMENT TYPE: Journal

LANGUAGE: English

AB An Indocyanine Green derivative (ICG-sulfo-OSu) was used as the labeling substance for monoclonal antibodies, and a fluorescence imaging system appropriate for ICG-sulfo-OSu excitable by IR rays (IR) was developed. The goal of this study was to demonstrate antibody labeling at the tissue level using this new imaging system. ICG-sulfo-OSu labeled mouse anti-human carcinoembryonic antigen (CEA) monoclonal antibody, a newly developed imaging system, and an IR ray microscope were employed in this experiment Paraffin sections of human colon cancer previously proven to have cross-reactivity to anti-CEA antibody were examined Pos. staining was seen as a brownish discoloration of oxidized 3,3'-diaminobenzidine tetrahydrochloride (DAB) in sections that reacted with ICG-sulfo-OSu-labeled anti-CEA antibody, and the fluorescence was well-matched with the oxidized DAB-pos. sites. Specific antibodies labeled with ICG-sulfo-OSu have significant affinity to cancer cells and seem to reflect sufficient amts. of fluorescence by IR to be useful in a system for the endoscopic detection of micro cancers using the immunohistochem. staining method.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s l5 and sulf?
1722758 SULF?
L8 76 L5 AND SULF?

=> d l8 60-76 ibib abs

L8 ANSWER 60 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:132465 CAPLUS

DOCUMENT NUMBER: 126:150538

TITLE: Preparation of waterless lithographic printing plate by electrophotography

INVENTOR(S): Kato, Eiichi; Oda, Akio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Brit. UK Pat. Appl., 115 pp.
CODEN: BAXXDU

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2300385	A1	19961106	GB 1996-8221	19960419
GB 2300385	B2	19981125		
US 5728497	A	19980317	US 1996-634289	19960418
JP 09006060	A2	19970110	JP 1996-98528	19960419

PRIORITY APPLN. INFO.: JP 1995-97093 A 19950421

AB The preparation of a waterless lithog. printing plate comprises forming a toner image on the surface of an electrophotog. element comprising an elec. conductive support and a photoconductive layer, providing a nontacky resin layer having a greater adhesion to the surface of the electrophotog. element than to the toner image, and selectively removing the

nontacky resin layer on the toner image by rubbing. The resin layer may be a silicone or fluorinated resin which may be cured. Alternatively, a chemical bond may be formed between the element and the resin layer. The method is suitable for a scanning exposure system using a laser beam of a low power and provides a lithog. printing plate excellent in image quality and printing durability.

L8 ANSWER 61 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:262108 CAPLUS
DOCUMENT NUMBER: 124:356111
TITLE: Image-forming process utilizing infrared-sensitive silver halide photographic material and ascorbic acid-containing developer solution
INVENTOR(S): Arai, Naoki
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08022107	A2	19960123	JP 1994-154777	19940706
PRIORITY APPLN. INFO.:			JP 1994-154777	19940706

AB The claimed image-forming process characterized by (a) having ≥1 Ag halide emulsion layer spectrally sensitized to the wavelength region of ≥700 nm, (b) providing another layer containing a developer-insol. IR dye between the emulsion layer and the support or on the backside of the support, and (c) having the overall coated silver weight of ≤2.6 g/m2 and gelatin weight of ≤3.3 g/m2/side and the method comprises (1) exposing imagewise and (2) processing by an automatic processor of roller transport type with the total processing time 15-60 s by a developer solution containing ≤0.25 mol/L ascorbic acid. The suitably applicable material is laser beam scanner films for graphic arts field, which are spectrally sensitized by penta- or heptamethyne cyanines.

L8 ANSWER 62 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:277162 CAPLUS
DOCUMENT NUMBER: 122:50768
TITLE: Stabilization of voltage sensitive dyes
INVENTOR(S): Beaty, Julie A.; Cooper, Steven R.; McLoughlin, Margaret A.
PATENT ASSIGNEE(S): Mallinckrodt Medical, Inc., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

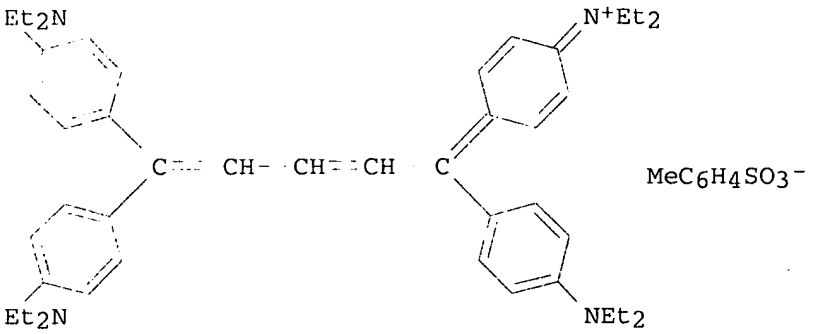
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9423646	A1	19941027	WO 1994-US4267	19940419
W: AU, BR, CA, CZ, FI, HU, JP, KR, NO, PL, SK				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9467076	A1	19941108	AU 1994-67076	19940419
EP 695138	A1	19960207	EP 1994-914830	19940419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 08509260	T2	19961001	JP 1994-523530	19940419
PRIORITY APPLN. INFO.:			US 1993-49936 A	19930420
			WO 1994-US4267 W	19940419

AB The invention relates to stable aqueous solns. of voltage sensitive dyes. Particularly the invention relates to the proper formulation and storage conditions that provide marketable aqueous solns. of voltage sensitive dyes for use as optical imaging contrast agents. A series of expts. were carried out on aqueous solns. of indocyanine green.

L8 ANSWER 63 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:268751 CAPLUS
DOCUMENT NUMBER: 122:226856
TITLE: Near infrared decoroling type recording material
INVENTOR(S): Murofushi, Katsumi; Hosoda, Kiichi
PATENT ASSIGNEE(S): Showa Denko Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06266044	A2	19940922	JP 1991-182615	19910723
JP 3244289	B2	20020107		
PRIORITY APPLN. INFO.:			JP 1991-182615	19910723
OTHER SOURCE(S):	MARPAT 122:226856			

GI



I

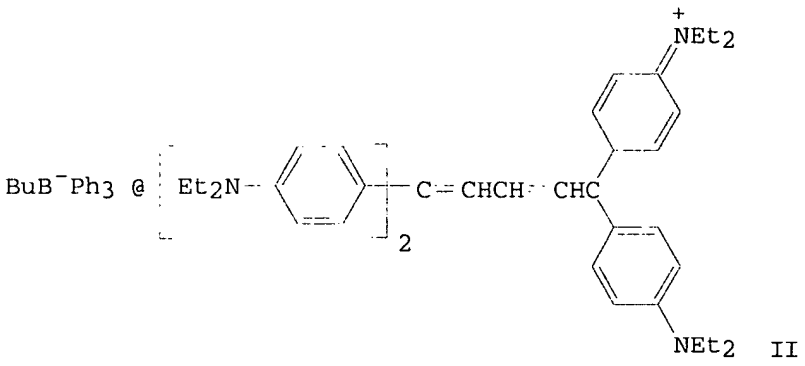
AB The material comprises a dye D +A- (D+ = cation with absorption in near IR region; A- = halo ion, ClO4-, PF6-, BF4-, SbF6-, OH-, sulfonic acid ion) and R1R2R3R4B-. R5R6R7R8N+ (R1-4 = alkyl, aryl, alkaryl, allyl, aralkyl alkenyl, alkynyl, silyl, (all may be substituted), alicycle, (un)saturated heterocycle; R5-8 = H, alkyl, aryl, allyl, alkaryl, aralkyl, alkenyl, (all may be substituted), alicycle, (un)saturated heterocycle). The material gives images stable to visible light and decolored by near IR, and the material can be rewritable. Thus, I and Me4N+.BPh3B- was used for the material.

L8 ANSWER 64 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:257395 CAPLUS
DOCUMENT NUMBER: 120:257395
TITLE: Electrophotographic toners providing images erasable by near infrared ray
INVENTOR(S): Murofushi, Katsumi; Hosoda, Kiichi; Abe, Juki
PATENT ASSIGNEE(S): Bando Chemical Ind, Japan; Showa Denko Kk
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent

LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05173362	A2	19930713	JP 1991-338755	19911220

PRIORITY APPLN. INFO.: JP 1991-338755 19911220
OTHER SOURCE(S): MARPAT 120:257395
GI



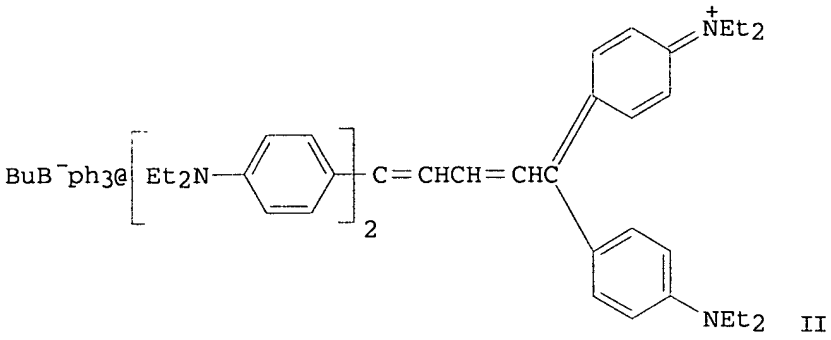
II

AB The title toners consist of colored toner particles prepared by adding a near IR ray-absorbing dye X-.Y+ or R1R2B-R3R4.Y+ [X- = halogen ion, ClO4-, PF6-, SbF6-, OH-, sulfonic acid ion, BF4-; Y+ = cation showing absorption in near IR regions; R1-4 = H, (hetero atom-containing) hydrocarbyl] to a binder resin and sensitizing toner particles prepared by adding a decoloring agent R5R6B-R7R8.R9R10N+R11R12 [I; R5-8 = alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, silyl (all the groups may be substituted), heterocyclyl, ≥1 of R5-8 is C1-12 alkyl; R9-12 = H, alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl (all the groups may be substituted), heterocyclyl] to a binder resin. The images obtained by using the toners are decolored by near IR irradiation and the toners show good light fastness. Thus, a mixture of styrene-Bu acrylate copolymer, the dye II, and additives was kneaded, pulverized, and mixed wih SiO2 to give a colored toner particles, while a sensitizing toner particles were prepared similarly by using styrene-2-ethylhexyl acrylate copolymer and the decoloring agent I (R5-7 = Ph, R8-12 = Bu). The 2 kinds of particles were mixed to give a toner, which was mixed with a ferrite carrier to give a developer.

L8 ANSWER 65 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:19228 CAPLUS
DOCUMENT NUMBER: 120:19228
TITLE: Electrophotographic decoloring toner
INVENTOR(S): Murofushi, Katsumi; Hosoda, Kiichi; Kachi, Toshio
PATENT ASSIGNEE(S): Bando Chemical Ind, Japan; Showa Denko Kk
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05134447	A2	19930528	JP 1991-298806	19911114

PRIORITY APPLN. INFO.: JP 1991-298806 19911114
OTHER SOURCE(S): MARPAT 120:19228
GI



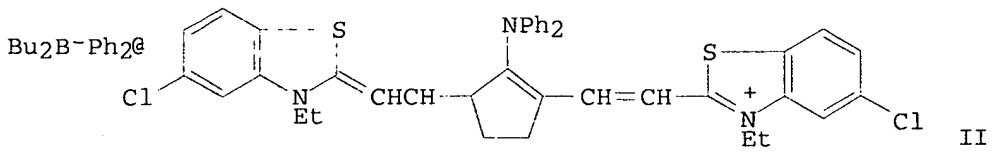
II

AB The title toners contain a binder resin, a near IR ray-absorbing dye X-.Y+ or R1R2B-R3R4·Y+ [X- = halogen ion, ClO4-, PF6-, SbF6-, OH-, sulfonic acid ion, BF4-; Y+ = cation showing absorption in near IR region; R1-4 = H, (hetero atom-containing) hydrocarbon], a decoloring agent R5R6B-R7R8·N+R9R10R11R12 [I; R5-8 = alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, silyl, (all the groups may be substituted), heterocycle; ≥1 of R5-8 is a C1-12 alkyl; R9-12 = H, alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, (all the groups may be substituted), heterocycle], and 0.2-30 parts of the UV ray-absorbing agent are contained per 100 parts of the binder resin. The image formed by using the toners are decolored by near IR ray irradiation, and the receptor paper can be used repeatedly.

L8 ANSWER 66 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:19222 CAPLUS
DOCUMENT NUMBER: 120:19222
TITLE: Electrophotographic decoloring toners with appropriate triboelectric charges
INVENTOR(S): Murofushi, Katsumi; Hosoda, Kiichi; Nagami, Harusuke
PATENT ASSIGNEE(S): Bando Chemical Ind, Japan; Showa Denko Kk
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05134448	A2	19930528	JP 1991-298904	19911114

PRIORITY APPLN. INFO.: JP 1991-298904 19911114
GI



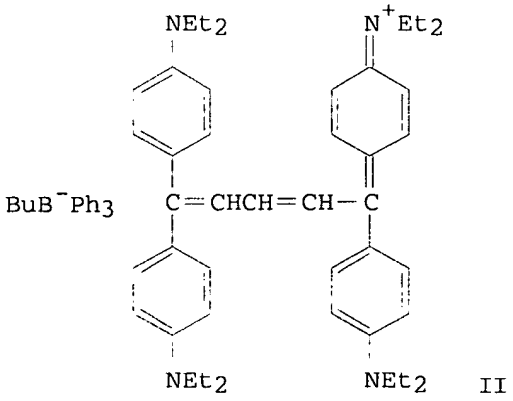
II

AB The title toners comprise a binder resin, a near IR ray-absorbing dye X-.Y+ or R1R2B-R3R4.Y+ [X- = halogen ion, ClO4-, PF6-, SbF6-, OH-, sulfonic acid ion, BF4-; Y+ = cation showing absorption in near IR region; R1-4 = H, (hetero atom-containing) hydrocarbyl], and a decoloring agent R5R6B-R7R8.N+R9R10R11R12 [I; R5-8 = alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, silyl, (all the groups may be substituted), heterocyclyl, ≥1 of R5-8 is a C1-12 alkyl; R9-12 = H, alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, (all the groups may be substituted), heterocyclyl], and contain a charge-controlling agent on their surfaces. The image formed by using the toners are decolored by near IR ray irradiation and the toners show appropriate triboelec. charges. Thus, toner particles prepared from styrene-Bu acrylate copolymer, II, and I (R5 = R9-12 = Bu, R6-8 = Ph) were coated with Bontron P-51 (charge-controlling agent) to give a decoloring toner.

L8 ANSWER 67 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:19220 CAPLUS
DOCUMENT NUMBER: 120:19220
TITLE: Decoloring toners for developing electrostatic images
INVENTOR(S): Murofushi, Katsumi; Hosoda, Kiichi; Abe, Juki
PATENT ASSIGNEE(S): Bando Chemical Ind, Japan; Showa Denko Kk
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05119520	A2	19930518	JP 1991-277725	19911024
PRIORITY APPLN. INFO.:			JP 1991-277725	19911024
OTHER SOURCE(S):	MARPAT 120:19220			

GI



II

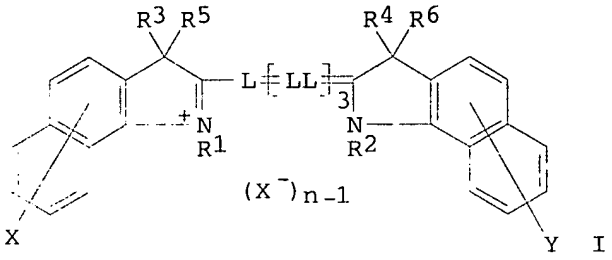
AB The title toners contain (a) a binder resin, (b) 0.01-25 parts/100 parts binder resin of a near IR-absorbing dye X-.Y+ or R1R2B-R3R4.Y+ [X- = halo ion, ClO4-, PF6-, SbF6-, OH-, sulfonic acid ion, BF4-; R1-4 = H, (hetero atom-containing) hydrocarbyl; Y+ = cation showing absorption in near IR regions), (c) 1-2500 parts/100 parts dye of a decoloring agent R5R6B-R7R8.N+R9R10R11R12 [I; R5-8 = alkyl, aryl, allyl, aralkyl, alkenyl, alkynyl, silyl, (these groups may be substituted), heterocyclyl, ≥1 of R5-8 is C1-12 alkyl; R9-12 = H, alkyl, aryl, allyl, aralkyl, alkenyl,

alkynyl, (these groups may be substituted), heterocyclyl], and (d) 0.1-20 parts/100 parts binder resin of a colorless polyolefin wax which is immiscible with the binder resin. The images formed by using the toners can be decolored uniformly and quickly by near IR ray irradiation Thus, styrene-Bu acrylate copolymer 100, II 20, I (R5 = Bu, R6-8 = Ph, R9-12 = Bu) 5, and Viscol 330P (polypropylene wax) 1 part were kneaded, pulverized, and mixed with silica to give a toner.

L8 ANSWER 68 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:49162 CAPLUS
DOCUMENT NUMBER: 118:49162
TITLE: Silver halide photographic material
INVENTOR(S): Harada, Toru
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04190344	A2	19920708	JP 1990-322054	19901126

PRIORITY APPLN. INFO.: JP 1990-322054 19901126
GI



I

AB The title material has a hydrophilic colloid layer containing one or more dyes represented by I. For I, R1-R6 = alkyl; X, Y = H, sulfonic acid group, OH, etc.; L = methine; X- = anion; n = 1 or 2; for inner salt, n = 1. The title material gives high-quality images.

L8 ANSWER 69 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:581631 CAPLUS
DOCUMENT NUMBER: 117:181631
TITLE: Infrared sensitive silver halide photographic material
INVENTOR(S): Takahashi, Yoshiya; Kaneko, Satoshi; Yamada, Motoshige
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04014037	A2	19920120	JP 1990-117967	19900508

PRIORITY APPLN. INFO.: JP 1990-117967 19900508
GI For diagram(s), see printed CA Issue.
AB The title photog. material utilizes a layer(s) containing >1 dyes (I) [R1, R2

= alkyl; Z1, Z2 = atoms required to complete condensed benzene or naphthalene ring; Y1, Y2 = atoms required to form a ring via the 3-position C of an indole nucleus; ≥3 acid groups are present in the mol.; L1-3 = methine group; X1 = anion; n = 1, 2] and ≥1 dyes selected from 3 other types of dyes represented below. The other dyes are II [R11, R12 = alkyl, aryl, CN, CO2R15, CONR15R16, COR17, SO2R17, SO2NR15R16, OR15, NR15R16, etc. (R15,16 = H, alkyl, aryl; R17 = alkyl, aryl); Q11, Q12 = methylene, Y11,12 = H, alkyl, sulfo, carboxyl; m, p = 0-5; n = 0-2], III [Z21 = atoms required to complete benzothiazole, naphthothiazole, benzoxazole, naphthoxazole, indole ring, or benzindole; R21 = alkyl; R22 = aryl; q = 1,2; X21 = anion; r = 1,2; at least 1 acid group is present; L21,22 = methine], and IV [Z31 = carbocycle, heterocycle; R31 = aryl, heterocycle-forming group; s = 0, 1; t = 0-2; s and t are not 0 simultaneously]. The hydrophilic colloid layer colored by the water-soluble dye(s) is readily bleached during processing and the material which has low visible light sensitivity yields superior images.

L8 ANSWER 70 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:521687 CAPLUS
DOCUMENT NUMBER: 117:121687
TITLE: Laser recording composition containing acetylenic compound
INVENTOR(S): Lewis, David F.
PATENT ASSIGNEE(S): ISP Investments Inc., USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9207297	A1	19920430	WO 1991-US6587	19910913
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
PRIORITY APPLN. INFO.:			US 1990-601537 A	19901023

AB A laser recording composition comprises a crystalline, thermochromic acetylenic compound containing a plurality of conjugated acetylene linkages as represented by the formula R(C:C)nR1 (R = amino, amido, hydroxy, ester group, ether group, phenolic group, carboxy, halogen, sulfonyl, sulfoxy, sulfinyl, silyl, siloxy, phosphoro, phosphate group, keto, aldehyde group, carbonate group, urea group, urethane group, or metal salt group; R1 = R, H, alkyl, aryl, alkaryl, or aralkyl; n = an integer greater than 1) and having a thermal sensitivity of ≥ 80°, a polycarbocyanine dye capable of absorbing energy over the wavelength range of 400-1500 nm, and a binder.. The recording composition, upon exposure to light up to 1500 nm, is capable of being encoded with a latent image, which may be subsequently developed to a visible image by exposure to short wavelength radiation.

L8 ANSWER 71 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:581315 CAPLUS
DOCUMENT NUMBER: 113:181315
TITLE: Silver halide photographic material colored with a cyanine dye to reduce halation and/or irradiation and to improve image sharpness
INVENTOR(S): Koga, Masao; Ohashi, Minoru
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

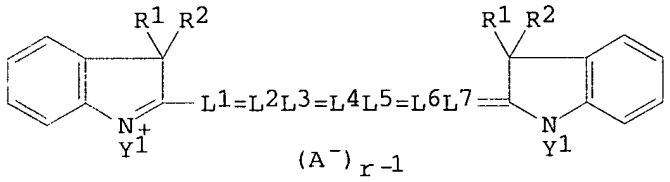
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02073247	A2	19900313	JP 1988-225884	19880908

PRIORITY APPLN. INFO.: JP 1988-225884 19880908
GI For diagram(s), see printed CA Issue.
AB The photog. material has a hydrophilic colloid layer containing ≥1 dye(s) of the formula I (R, R1 = alkyl; R2-5 = alkyl; A, B = condensed benzo- or naphtho-ring; at least one of A and B is substituted by C(:O)NR6OH; R6 = H, alkyl; L = methyne; X = anion; n = 1, 2; when intramol. salt is formed, n = 1). The dye works as an improved antihalation and/or antiirradn. dye and increases image sharpness, consequently, the material is suitably used for laser beam recording , although not necessarily limited to this application. Thus, in an exptl. black-and-white film, a cyanine dye II was added to the emulsion to provide the mentioned advantages.

L8 ANSWER 72 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:467861 CAPLUS
DOCUMENT NUMBER: 111:67861
TITLE: Image formation method using scanning laser exposure
INVENTOR(S): Kato, Eiichi; Ono, Shigeru; Ishii, Kazuo; Itakura, Ryosuke
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63241561	A2	19881006	JP 1987-74491	19870330
JP 2525595	B2	19960821		

PRIORITY APPLN. INFO.: JP 1987-74491 19870330
GI



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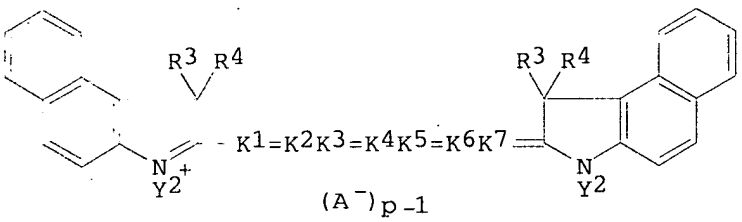


II

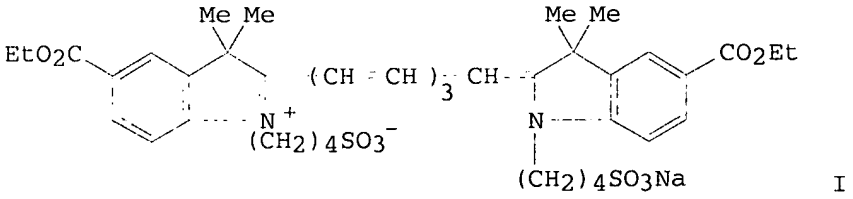
AB The title method includes a laser beam-scanning (e.g., semiconductor laser) exposure process on a photoconductive composition containing an inorg.

photoconductor, a cyclic acid anhydride, a binder resin, and a dye sensitizer of the structure I and/or II [R1-R4 = alkyl; L1-L7 and K1-K7 = methine; ≥1 of L1-L7 = substituted methine; Y1, Y2 = carboxy-, sulfo-, or phospho-substituted alkyl or aralkyl; A = anion; r = 1, 2; p = 1, 2]. The method is useful in electrophotog.

L8 ANSWER 73 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:222544 CAPLUS
DOCUMENT NUMBER: 110:222544
TITLE: Method of image formation including scanning exposure process
INVENTOR(S): Kato, Eiichi; Ono, Shigeru; Ishii, Kazuo; Itakura, Ryosuke
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 19 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 288083	A2	19881026	EP 1988-106519	19880422
EP 288083	A3	19900328		
EP 288083	B1	19940810		
R: DE, GB				
JP 63264763	A2	19881101	JP 1987-97523	19870422
JP 08023707	B4	19960306		
US 4929527	A	19900529	US 1988-185181	19880422

PRIORITY APPLN. INFO.: JP 1987-97523 A 19870422
GI



I

AB A photoconductive composition which exhibits excellent dark charge-retaining properties and excellent sensitivity to radiation from the near IR region as well as excellent long-term stability is comprised of an inorg. photoconductor, a cyclic acid anhydride, and a spectral sensitizing dye dispersed in a binder resin. The composition is especially useful for electrophotog.
image formation using laser-beam scanning exposure. Thus, an Al foil was overcoated with a composition containing Sazex 2000, phthalic anhydride,
I, acrylic acid-Bu methacrylate-Me methacrylate copolymer, and PhMe, dried, corona charged to -550 V, and then exposed to a Ga-Al-As semiconductor laser to show a dark reduction retention of 91% and a sensitivity of 23.1 erg/cm2 vs 73% and 80.6 erg/cm2 for a I-free control.

L8 ANSWER 74 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1986:524299 CAPLUS
DOCUMENT NUMBER: 105:124299
TITLE: Image recording materials
INVENTOR(S): Sato, Tsutomu; Umehara, Masaaki; Abe, Michiharu; Oba, Hideaki; Ueda, Yutaka

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60214994	A2	19851028	JP 1984-70934	19840411

PRIORITY APPLN. INFO.: JP 1984-70934 19840411

GI For diagram(s), see printed CA Issue.

AB Recording materials contain a cyanine or merocyanine dye having the general formula R(CR1:CR2)nCH:Z or Z1(:CHCH:)nZ2 (R = I-V; R1 = H, carboxyalkyl; R2 = H, alkyl; R3 = (sulfonated) alkyl; n = 0-2; Z = VI-X; Z1 = XI-XVII; Z2 = XVIII, XIX). The recording materials provide low-cost, high-d. real-time information recording, capable of addition of information, without development and fixing procedures and the use of a dark-room. Thus, a recording material was prepared by coating an EtOH solution of XX on a PMMA support to form a 500-Å layer. Exposure to a Xe flash through a metal photomask produced significant changes in transmission and reflection spectra of the material in the exposed areas. Also, recording using a 790-nm laser pulse (1.5 mW, 1 mHz, 1.5 m/s) produced spectral changes, and the recorded information was read using a 0.15 mW laser, with a 45 dB signal-to-noise ratio.

L8 ANSWER 75 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:423803 CAPLUS
DOCUMENT NUMBER: 83:23803
TITLE: Interactions of bilirubin and other ligands with ligandin
AUTHOR(S): Kamisaka, Kazuaki; Listowsky, Irving; Gatmaitan, Zenaida; Arias, Irwin M.
CORPORATE SOURCE: Liver Res. Cent., Albert Einstein Coll. Med., Bronx, NY, USA
SOURCE: Biochemistry (1975), 14(10), 2175-80
CODEN: BICHAW; ISSN: 0006-2960
DOCUMENT TYPE: Journal
LANGUAGE: English

AB CD methods were used to study the structure of rat ligandin and the binding of organic anions to the protein. Ligandin has a highly ordered secondary structure with .apprx.40% α helix, 15% β structure, and 45% random coil. Bilirubin binding occurred primarily at a single high-affinity site on the protein. The binding constant for bilirubin (5 + 107M-1) was highest among the ligands studied. The bilirubin-ligandin complex exhibited a well-defined CD spectrum with 2 major overlapping ellipticity bands of opposite sign in the bilirubin absorption region. This spectrum was virtually a mirror image of that of human or rat serum albumin-bilirubin complexes. Studies on the direct transfer of bilirubin from ligandin to rat serum albumin showed that association consts. of bilirubin-ligandin complexes were approx. 10-fold less than those of the bilirubin-albumin system. Ligandin exhibited a broad specificity with respect to the type of ligand bound. A series of organic anions including dyes used clin. for liver function tests, fatty acids, hormones, heme derivs., bile acids, and other ligands that were considered likely to interact with ligandin, were examined Most induced ellipticity changes consistent with competitive displacement of bilirubin from ligandin and relative affinities of these compds. for ligandin were determined based on their effectiveness in displacing the bilirubin. Some substances such as glutathione, conjugated sulfobromophthaleins, and lithocholic acid bound to ligandin but induced anomalous spectral shifts, when added to ligandin-bilirubin complexes. Other compds., including some that act as substrates for the glutathione transferase

activity exhibited by ligandin, revealed no apparent competitive effects with respect to the bilirubin binding site.

L8 ANSWER 76 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1964:7213 CAPLUS
DOCUMENT NUMBER: 60:7213
ORIGINAL REFERENCE NO.: 60:1253e-h
TITLE: Spectral sensitization. II. The electron spin resonance (E.S.R.) spectra of donor-acceptor complexes between sensitizing dyes and acceptor compounds
AUTHOR(S): LuValle, J. E.; Leifer, A.; Koral, M.; Collins, M.
CORPORATE SOURCE: Fairchild Camera and Instrument Corp., Syosset, NY
SOURCE: Journal of Physical Chemistry (1963), 67(12), 2635-9
CODEN: JPCHAX; ISSN: 0022-3654
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 58, 4063g. Polycryst. donor-acceptor complexes (110) of sensitizing dyes, desensitizing dyes, pyrimidines, and some miscellaneous compds.
were prepared and the E.S.R. spectra obtained. The spectra in general show a broad peak at low field and a very sharp peak at g = 2.0033 ± 0.0003. The broad peak is assigned to radicals resulting from an oxidation-reduction reaction. The sharp peak is assigned to the donor-acceptor complex. Of the complexes 26 exhibited only the donor-acceptor peak, 49 gave clearly resolved donor-acceptor peaks, 28 gave partially resolved donor-acceptor peaks, and 12 gave spectra in which the donor-acceptor peak was unresolved. Only 3 gave evidence that the donor-acceptor peak can exhibit hyperfine structure. The possible utilization of the intensity of the donor-acceptor peak for the evaluation of sensitizing dyes is discussed. Spectral sensitizing dyes can contribute light sensitivity beyond the intrinsic absorption range of photosensitive media via donor-acceptor complexes and the dyes can also react with the quinoid oxidation products of photog. development to form donor-acceptor complexes which materially increase the developability of the latent image. This latter process may be as important as the initial spectral sensitization. The observation that donor-acceptor peaks arise from nucleic acid bases indicates another approach to genetic modifications by very mild agents.

=> d l8 40-59 ibib abs

L8 ANSWER 40 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:140721 CAPLUS
DOCUMENT NUMBER: 133:55447
TITLE: Development of CCD image analysis system using infrared fluorescence for diagnosis of microlesions in digestive tract
AUTHOR(S): Muguruma, Naoki; Hayashi, Shigehito; Ii, Kunio; Ito, Susmu
CORPORATE SOURCE: Sch. Med., The univ. Tokushima, Japan
SOURCE: Ikagaku Oyo Kenkyu Zaidan Kenkyu Hokoku (2000), Volume Date 1998, 17, 94-97
CODEN: IOKHEP; ISSN: 0914-5117
PUBLISHER: Ikagaku Oyo Kenkyu Zaidan
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB Human gastric cancer tissues were observed by a newly developed CCD imaging system using anti-CEA antibodies labeled with ICG-sulfo-OSu, a fluorescent substance exited by IR rays. IR fluorescent images were observed in the cancer tissues but not in normal tissues and agreed with results from immunohistochem. staining.

L8 ANSWER 41 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:780998 CAPLUS

DOCUMENT NUMBER: 132:28663
TITLE: Positively-working image-forming material
INVENTOR(S): Nakamura, Tatsuo; Kunita, Kazuto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11338146	A2	19991210	JP 1998-147227	19980528

PRIORITY APPLN. INFO.: JP 1998-147227 19980528

AB The title material contains a polymerizable onium salt and a polymer insol. in water and soluble in aqueous alkali. The material, suitable for use in production of lithog. plate materials capable of direct platemaking, shows improved photosensitivity and development latitude.

L8 ANSWER 42 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:772437 CAPLUS
DOCUMENT NUMBER: 132:28688
TITLE: Thermal transfer sheet with light-heat-conversion layer
INVENTOR(S): Yamamoto, Mitsuru; Takahashi, Yonosuke
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11334231	A2	19991207	JP 1998-140925	19980522

PRIORITY APPLN. INFO.: JP 1998-140925 19980522
OTHER SOURCE(S): MARPAT 132:28688
GI For diagram(s), see printed CA Issue.

AB The title thermal transfer sheet comprises a support coated with (1) a light-heat-converting layer containing a light-heat-conversion substance including a compound I (Z = atoms required to form a benzene, naphthalene or heteroarom. ring; T = O, S, Se, NR1, CR2R3, CR4:CR5; R1-3 = alkyl, alkenyl, aryl; R4, R5 = H, halo, alkyl, aryl, alkoxy, aryloxy, CO2H, acyl, acylamino, carbamoyl, sulfamoyl, sulfonamide; L = trivalent linking group formed by linking 5 or 7 methine groups by conjugated double bonds; M = divalent linking group; X+ = cation) and a polyimide resin and with (2) a 0.2-1.5 μm-thick image-forming layer containing 30-70 weight% of each of a pigment and a noncrystal organic polymer with a softening point of 40-150°. The light-heat-converting layer shows high thermal resistance and moisture resistance and the sheet provides a low fog image and is useful for manufacture of color proofs.

L8 ANSWER 43 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:658502 CAPLUS
DOCUMENT NUMBER: 131:293240
TITLE: Silver halide photographic material containing near infrared ray absorbing dye
INVENTOR(S): Oikawa, Noriki; Suzuki, Keiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11282113	A2	19991015	JP 1998-102166	19980330
PRIORITY APPLN. INFO.:			JP 1998-102166	19980330

OTHER SOURCE(S): MARPAT 131:293240
GI For diagram(s), see printed CA Issue.
AB The title photog. material possesses, on a support, Ag halide emulsion layers in which ≥2 kinds of spectrally sensitized Ag halide emulsions showing different sensitivities at the same exposure wavelength are contained in the same emulsion layer or different emulsion layers and contains ≥1 hydrazine derivative as a nucleating agent and ≥1 dye selected from A1:LaA2 and B1:LbB2.X-k-1 (A1, A2 = acidic nucleus; B1 = basic nucleus; B2 = onium form of basic nucleus; La, Lb = linking group in which 5, 7, 9 or 11 methine groups link by conjugated double bonds; X = anion; k = 1 or 2, when the dye forms an inner salt, k = 1), of which the absorption maximum wavelength is at 850-1400 nm, in the emulsion layer and/or other hydrophilic colloid layer. In the material, ≥1 dye I or II [Z1, Z2 = nonmetal atoms required to form a 5- or 6- membered N-containing heterocycle which may be condensed; Z11, Z12 = atoms required to form a 5- or 6-membered heterocycle which may be condensed with benzene or naphthalene ring; R1, R2 = alkyl, alkenyl, aralkyl; R11, R12 = alkyl; L = linking group in which 5, 7 or 9 methine groups link so that the double bonds are conjugated; Y1, Y2 = carboxyl, sulfonamide or sulfamoyl group which links to the heterocycle or benzene or naphthalene ring which is condensed with the heterocycle; X = anion; a, b, c, n = 0 or 1, when II forms an inner salt, n = 0] may be used in place of the above dye. The material provides a high contrast image with low residual color stain when processed with stable developing solns. and high black d. even when the amount of Ag used is less and is detectable with optical sensors.

L8 ANSWER 44 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:645029 CAPLUS
DOCUMENT NUMBER: 132:134170
TITLE: Labeled carcinoembryonic antigen antibodies excitable by infrared rays: a novel diagnostic method for micro cancers in the digestive tract
AUTHOR(S): Muguruma, Naoki; Ito, Susumu; Bando, Terumi; Taoka, Satoko; Kusaka, Yoshihiro; Hayashi, Shigehito; Ichikawa, Soichi; Matsunaga, Yuko; Tada, Yoshie; Okamura, Seisuke; Ii, Kunio; Imaizumi, Katsuichi; Nakamura, Kazunari; Takesako, Kazuhiro; Shibamura, Seiichi
CORPORATE SOURCE: Second Department of Internal Medicine, School of Medicine, The University of Tokushima, Tokushima, 770-8503, Japan
SOURCE: Internal Medicine (Tokyo) (1999), 38(7), 537-542
CODEN: IEDIEP; ISSN: 0918-2918
PUBLISHER: Japanese Society of Internal Medicine
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An Indocyanine Green derivative (ICG-sulfo-OSu) was used as the labeling substance for monoclonal antibodies, and a fluorescence imaging system appropriate for ICG-sulfo-OSu excitable by IR rays (IR) was developed. The goal of this study was to demonstrate antibody labeling at the tissue level using this new imaging system. ICG-sulfo-OSu labeled mouse anti-human carcinoembryonic

antigen (CEA) monoclonal antibody, a newly developed imaging system, and an IR ray microscope were employed in this experiment Paraffin sections of human colon cancer previously proven to have cross-reactivity to anti-CEA antibody were examined Pos. staining was seen as a brownish discoloration of oxidized 3,3'-diaminobenzidine tetrahydrochloride (DAB) in sections that reacted with ICG-sulfo-OSu-labeled anti-CEA antibody, and the fluorescence was well-matched with the oxidized DAB-pos. sites. Specific antibodies labeled with ICG-sulfo-OSu have significant affinity to cancer cells and seem to reflect sufficient amts. of fluorescence by IR to be useful in a system for the endoscopic detection of micro cancers using the immunohistochem. staining method.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 45 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:640203 CAPLUS
DOCUMENT NUMBER: 131:279220
TITLE: Processing of silver halide photographic material
INVENTOR(S): Ito, Hirohide; Hirano, Sachiko
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11271945	A2	19991008	JP 1998-75765	19980324
PRIORITY APPLN. INFO.:			JP 1998-75765	19980324

OTHER SOURCE(S): MARPAT 131:279220
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB In the title process in which a Ag halide photog. material containing dyes I-VII is imagewisely exposed, developed, fixed, and washed with a washing water containing an oxidant, a concentrated liquid or a solid agent containing an oxidant is supplied while being mixed with water in the washing tank after the fixing step in automatic processor. The definitions for I-VII are as follows. I-IV [Z1, Z2 = nonmetal atoms required to form a (substituted) benzo- or naphtho-condensed ring; R1-6 = alkyl; Y1, Y2 = nonmetal atoms required to form a pyrrolopyridine ring, the bonds :N+R1 and :NR4 are contained in the rings Y1 and Y2, resp., in III and IV, R1-6, Z1, Z2, Y1, and Y2 are groups which make the each dye mol. possible to possess ≥2 acid-substituted groups or a substituent having ≥1 CH2CH2OR (R = H or alkyl); L = methine; X- = anion; m = 4 or 5; n = 1 or 2, when the each dye forms an inner salt, n = 1]. V (V1, V2 = sulfo, carboxyl, sulfo- or carboxyl-containing alkyl or aryl; n = 1-4; m = 1-3, n ≠ m ≠ 1). VI [R7, R9 = alkyl aralkyl, aryl, or heterocycle having ≥1 SO3H- or CO2H, the SO3H or CO2H group may link to alkyl, aralkyl, aryl or heterocycle via a divalent linking group; R8, R10 = alkyl, CO2R12, CONR12R13, NR12R13, NR12COR11, NR12CONR12R13, CN, OR12, COR11, SO2R11, SOR11, SO2NR12R13 (R11 = alkyl, aralkyl, aryl; R12, R13 = H, alkyl, aralkyl, aryl, R12 and R13 may link each other to form a 5- or 6-membered ring); L1-3 = methine; M+ = H or other cation]. VII [R14-17 = (substituted) alkyl; R18, R19 = sulfone, sulfoalkyl, alkoxy, ≥1 of R18 and R19 is sulfone or sulfoalkyl]. The oxidant may be H2O2. The

washing water may contain polyethylene glycol-polypropylene glycol triblock copolymer, salicylic acid or its derivative of salt, a disinfectant, and an agent to prevent Ag sludge formation. Staining in the washing tank in automatic processor is extremely decreased and color stain of the material after processing is little.

L8 ANSWER 46 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:482019 CAPLUS
DOCUMENT NUMBER: 131:108956
TITLE: heat-sensitive imaging element for producing lithographic plate
INVENTOR(S): Vermeersch, Joan; Van Damme, Marc; Kokkelenberg, Dirk
PATENT ASSIGNEE(S): Agfa-Gevaert N.V., Belg.
SOURCE: Eur. Pat. Appl., 12 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 931647	A1	19990728	EP 1998-200187	19980123
EP 931647	B1	20030402		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 11265062	A2	19990928	JP 1999-11908	19990120
US 6511782	B1	20030128	US 1999-235393	19990122

PRIORITY APPLN. INFO.: EP 1998-200187 A 19980123
US 1998-77355P P 19980309

AB According to the present invention there is provided a heat-sensitive imaging element for producing a lithog. plate comprising on a lithog. base with a hydrophilic surface an image-forming layer including thermoplastic particles of a homopolymer or a copolymer of styrene and a hydrophilic polymer containing carboxyl groups, characterized in that the imaging element further contains an anionic IR cyanine dye being present in the image-forming layer or a layer adjacent thereto.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 47 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:439861 CAPLUS
DOCUMENT NUMBER: 131:122998
TITLE: Manufacture of heat-mode recording lithographic printing plate
INVENTOR(S): Shimizu, Kunio
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11190902	A2	19990713	JP 1997-366147	19971225

PRIORITY APPLN. INFO.: JP 1997-366147 19971225

AB The process comprises effecting imagewise exposure of an image-forming layer containing an o-quinonediazide compound and an IR absorber on a support by a laser, exposing the overall surface to UV light, and developing by a water-based developer. The IR absorber may be selected from a N-free pyrylium dye, a thiopyrilium dye, a thiol nickel

complex dye, a mercaptophenol complex dye, and a mercaptonaphthol complex dye. This lithog. printing plate can be manufactured by using a laser digital recording method.

L8 ANSWER 48 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:404815 CAPLUS
DOCUMENT NUMBER: 131:56154
TITLE: Optoacoustic contrast agents and methods for their use in ultrasound and optical imaging
INVENTOR(S): Unger, Evan C.; Wu, Yunqiu
PATENT ASSIGNEE(S): ImaRx Pharmaceutical Corp., USA
SOURCE: PCT Int. Appl., 166 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9930620	A1	19990624	WO 1998-US27060	19981217
W: AU, JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6123923	A	20000926	US 1997-993165	19971218
AU 9919318	A1	19990705	AU 1999-19318	19981217
EP 1039834	A1	20001004	EP 1998-964127	19981217
EP 1039834	B1	20050928		
R: DE, FR, GB, IT				

PRIORITY APPLN. INFO.: US 1997-993165 A 19971218
WO 1998-US27060 W 19981217

AB The present invention generally relates to optoacoustic contrast agents and methods of diagnostic and therapeutic imaging using optoacoustic contrast agents. A composition comprising a stabilizing material and a photoactive agent is administered and the patient is scanned using ultrasound imaging and optical imaging to obtain visible images of a region of the patient. The compns. may comprise a wide variety of addnl. components, including, for example, one or more of gases, gaseous precursors, liqs. oils, stabilizing materials, diagnostic agents, photoactive agents, bioactive agents, and/or targeting ligands. Perfluoropropane encapsulated optoacoustic liposomes were formed from dipalmitoylphosphatidylcholine, dipalmitoylphosphatidic acid, dipalmitoylphosphatidylethanolamine-PEG 5,000, and dipalmitoylphosphatidylethanolamine derivatized with lissamine rhodamine B. The sized photoactive lipid was optimally excited with 550 nm light and the fluorescence emission peak was 590 nm.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 49 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:355685 CAPLUS
DOCUMENT NUMBER: 130:359319
TITLE: Positive image-forming material for planographic printing plate preparation
INVENTOR(S): Nakamura, Ippei; Kunita, Kazuto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 63 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 919868	A1	19990602	EP 1998-122195	19981127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11160860	A2	19990618	JP 1997-328937	19971128
US 6514656	B1	20030204	US 1998-200734	19981127

PRIORITY APPLN. INFO.: JP 1997-328937 A 19971128
OTHER SOURCE(S): MARPAT 130:359319

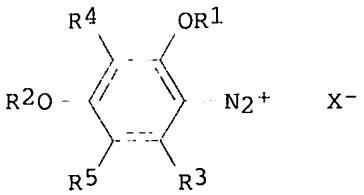
AB A pos. image-forming material for planog. printing plate preparation by scanning with a semiconductor laser comprises an alkali-aqueous-solution-soluble polymer (A) having a phenolic hydroxyl group, a light- and heat-decomposing compound (B) which suppresses the solubility of the polymer (A) in an alkali aqueous solution, and a crosslinkable compound which increases the solubility-suppressing effect of the compound (B) on the polymer (A) and which has in its mol. two or more crosslinkable groups which are crosslinked with the polymer (A) upon heating.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 50 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:340998 CAPLUS
DOCUMENT NUMBER: 131:25797
TITLE: Positive image-recording material by infrared laser radiation for lithographic printing plate
INVENTOR(S): Kobayashi, Fumikazu; Kawauchi, Ikuo; Kitatani, Katsushi; Oshima, Yasuhito
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11143064	A2	19990528	JP 1997-301969	19971104
JP 3802207	B2	20060726		

PRIORITY APPLN. INFO.: JP 1997-301969 19971104
OTHER SOURCE(S): MARPAT 131:25797
GI



I

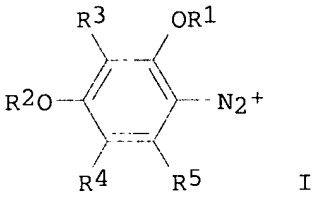
AB The material contains a diazonium salt I (R1, R2 = C≤20 hydrocarbyl; R4, R5 = H, C≤20 hydrocarbyl; R3 = H, C≤20 alkyloxy, aryloxy, or aralkyloxy; X = F, Cl, Br, I, ClO4, BF4, PF6, SbF6, AsF6, alkylsulfonic acid ion, arylsulfonic acid ion), an IR absorber, and an alkali-soluble binder. The material shows good storage stability and

gives pos. lithog. printing plates under white light.

L8 ANSWER 51 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:156435 CAPLUS
DOCUMENT NUMBER: 130:175335
TITLE: Image recording material
INVENTOR(S): Kobayashi, Fumikazu; Kitatani, Katsuji; Oshima, Yasuhito
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 50 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 899614	A1	19990303	EP 1998-116192	19980827
EP 899614	B1	20020109		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11133594	A2	19990521	JP 1998-8249	19980120
JP 3805519	B2	20060802		
US 6162574	A	20001219	US 1998-140347	19980826
PRIORITY APPLN. INFO.:			JP 1997-234406 A	19970829
			JP 1998-8249 A	19980120

OTHER SOURCE(S): MARPAT 130:175335
GI



I

AB An image recording material comprises at least a diazonium salt represented by the general formula I (R1, R2 = a hydrocarbon group having less than 20 carbon atoms; R3, R4 = H or a hydrocarbon group having less than 20 carbon atoms; R5 = H or alkyloxy, aryloxy, or aralkyloxy group having less than 20 carbon atoms; and X = F-, Cl-, Br-, I-, ClO4-, BF-, PF6-, SbF6-, AsF6-, or an alkyl- or arylsulfonate anion), an IR-absorbing agent, a crosslinking agent, and a binder. The image recording material enables direct planog. printing plate production from digital computer signals by conducting recording by using an IR laser. Further, the image recording material has excellent storability.
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 52 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:9730 CAPLUS
DOCUMENT NUMBER: 130:78110
TITLE: Methods of photoacoustic imaging
INVENTOR(S): Henrichs, Paul Mark; Eriksen, Marten; Rongved, Pal; Gunther, Wolfgang Hans Heinrich; Snow, Robert Allen; Hollister, Kenneth Robert; McIntire, Gregory Lynn
PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway; Towler, Philip Dean
SOURCE: PCT Int. Appl., 72 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9857667	A1	19981223	WO 1998-GB1751		19980616
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9881158	A1	19990104	AU 1998-81158		19980616
EP 996469	A1	20000503	EP 1998-930870		19980616
EP 996469	B1	20030820			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2002508760	T2	20020319	JP 1999-503963		19980616
AT 247491	E	20030915	AT 1998-930870		19980616
ES 2206951	T3	20040516	ES 1998-930870		19980616
US 6662040	B1	20031209	US 1999-458008		19991210
PRIORITY APPLN. INFO.:			GB 1997-12524	A	19970616
			US 1997-49909P	P	19970618
			WO 1998-GB1751	W	19980616

OTHER SOURCE(S): MARPAT 130:78110

AB A method is provided for generating an image of an animate human or non-human animal body or part thereof. The method comprises administering to the body a physiol. tolerable contrast agent comprising a radiation-absorbing component and/or a pressure-inducing component, exposing the body to radiation, detecting pressure waves generated in the body by the radiation, and generating an optoacoustic image therefrom of at least a part of the body containing the administered contrast agent.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 53 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:9729 CAPLUS
DOCUMENT NUMBER: 130:63062
TITLE: Use of acousto-optical and sonoluminescence contrast agents
INVENTOR(S): Henrichs, Paul Mark; Wolfe, Henry Raphael
PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway; Towler, Philip Dean
SOURCE: PCT Int. Appl., 57 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9857666	A1	19981223	WO 1998-GB1438	19980615
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,				

CM, GA, GN, ML, MR, NE, SN, TD, TG

AT 237363	E	20030515	AT 1998-921652		19980519
ES 2196558	T3	20031216	ES 1998-921652		19980519
AU 9874433	A1	19990104	AU 1998-74433		19980615
EP 991429	A1	20000412	EP 1998-921652		19980615
EP 991429	B1	20030416			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2002504924	T2	20020212	JP 1999-503922		19980615
PT 991429	T	20030930	PT 1998-921652		19980615
PRIORITY APPLN. INFO.:			GB 1997-12525	A	19970616
			US 1997-50115P	P	19970618
			WO 1998-GB1438	W	19980615

AB A method is disclosed for generating information from an animate human or non-human animal body by administering to the body a physiol. tolerable material capable of absorbing, scattering or emitting light at a wavelength in the range 300-1300 nm; subjecting at least a portion of the body to ultrasound irradiation; detecting light in the wavelength range 300-1300 nm from the portion of the body; and manipulating the detected light to generate said information. The method is useful for diagnosis.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 54 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:794976 CAPLUS
DOCUMENT NUMBER: 130:20606
TITLE: Sonodynamic therapy using an ultrasound sensitizer compound
INVENTOR(S): Alfheim, Jan Alan; Henrichs, Paul Mark; Hohenschuh, Eric Paul; Johannesen, Edvin Wilhelm; Sanderson, William Anthony; Snow, Robert Allen
PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway
SOURCE: PCT Int. Appl., 192 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9852609	A1	19981126	WO 1998-GB1444		19980519
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
AU 9874438	A1	19981211	AU 1998-74438		19980519
EP 979104	A1	20000216	EP 1998-921658		19980519
EP 979104	B1	20040915			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001525845	T2	20011211	JP 1998-550117		19980519
AT 275971	E	20041015	AT 1998-921658		19980519
US 6498945	B1	20021224	US 1999-435616		19991108
PRIORITY APPLN. INFO.:			GB 1997-10049	A	19970519
			US 1997-48487P	P	19970603
			WO 1998-GB1444	W	19980519

AB A method is provided for treatment of the human or animal body by sonodynamic therapy in which a sensitizer agent is administered and the body is exposed to ultrasound to achieve a cytopathogenic effect at a site

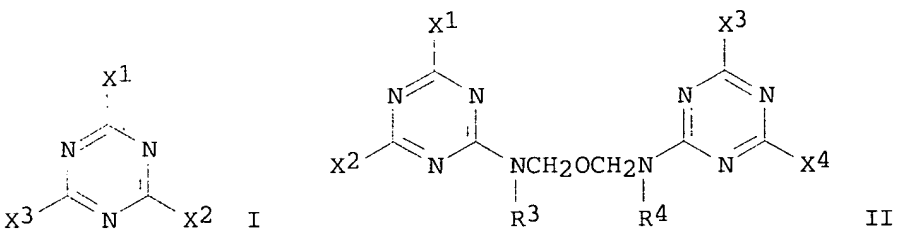
therein, wherein the sensitizer agent is a physiol. tolerable substance which is capable of enhancing the cytopathogenic efficacy of said sonodynamic therapy. Preferably, the sensitizer agent is a water-soluble polymer compound or a conjugate thereof. Preparation of compds. of the invention is described.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 55 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:782008 CAPLUS
DOCUMENT NUMBER: 130:73905
TITLE: Image-forming material and image formation useful for presensitized lithographic plate
INVENTOR(S): Hirai, Katsura; Yoshizawa, Tomomi; Nagashima, Toshiharu
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10319591	A2	19981204	JP 1997-130973	19970521
JP 3757543	B2	20060322		
PRIORITY APPLN. INFO.:			JP 1997-130973	19970521

OTHER SOURCE(S): MARPAT 130:73905
GI



AB The title material possesses, on a support, a photosensitive layer containing a blocked isocyanate I (X1-3 = H or substituent, ≥1 of X1-3 is NR1CO2R2; R1 = H or alkyl; R2 = alkyl, aralkyl, imido, triazolyl, pyridyl, sulfonyl, pyrazolyl, halo, aromatic ring) or II (X1-4 = H or substituent; X1 and/or X2 and X3 and/or X4 are NR1CO2R2; R1, R3, R4 = H or alkyl; R2 = alkyl, aralkyl, imido, triazolyl, pyridinium, sulfonyl , pyrazolyl, halo, aromatic ring), an IR absorbent, and an optional alkali-soluble resin. The material is imagewise exposed with an IR ray and developed with an alkaline developing solution to remove the exposed area to form an image. The material shows high sensitivity toward IR rays and developability and is useful for presensitized lithog. plates.

L8 ANSWER 56 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:723794 CAPLUS
DOCUMENT NUMBER: 130:1845
TITLE: Physiologically tolerable chromophore-polyalkylene oxide conjugate light imaging contrast agents, and preparation thereof
INVENTOR(S): Snow, Robert Allen; Henrichs, Paul Mark; Delecki,

Daniel Joseph; Sanderson, William Anthony; Desai, Vinay Chandrakant; Bacon, Edward; Hollister, Kenneth Robert; Hohenschuh, Eric Paul

PATENT ASSIGNEE(S): Nycomed Imaging AS, Norway; Cockbain, Julian Roderick Michaelson

SOURCE: PCT Int. Appl., 174 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9848838	A1	19981105	WO 1998-GB1244	19980428
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
WO 9848845	A1	19981105	WO 1998-GB1245	19980428
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9872212	A1	19981124	AU 1998-72212	19980428
AU 9872213	A1	19981124	AU 1998-72213	19980428
EP 979103	A1	20000216	EP 1998-919335	19980428
EP 979103	B1	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002504894	T2	20020212	JP 1998-546749	19980428
AT 257014	E	20040115	AT 1998-919335	19980428
ES 2213899	T3	20040901	ES 1998-919335	19980428
US 6350431	B1	20020226	US 1999-429347	19991028

PRIORITY APPLN. INFO.:

US 1997-848586	A2	19970429
GB 1997-27124	A	19971222
US 1998-35285	A2	19980305
WO 1998-GB1244	W	19980428
WO 1998-GB1245	W	19980428

AB Physiol. tolerable light imaging contrast agent compds. are provided having a mol. weight in the range 500-500,000 and containing at least two chromophores having delocalized electron systems as well as at least one polyalkylene oxide (PAO) moiety having a mol. weight in the range 60-100,000.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 57 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:580224 CAPLUS
DOCUMENT NUMBER: 129:231985
TITLE: Heptamethinecyanine dyes, near-IR-absorbing inks/sheets, and photographic films therewith

INVENTOR(S): Usami, Takashi; Nishigaki, Junji
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10231435	A2	19980902	JP 1997-48442	19970217
JP 3187738	B2	20010711		
US 5973158	A	19991026	US 1998-24895	19980217
PRIORITY APPLN. INFO.:			JP 1997-48442 A	19970217

OTHER SOURCE(S): MARPAT 129:231985
GI For diagram(s), see printed CA Issue.
AB The claimed dyes, showing no or less visible-light absorption, have structure I (Z1, Z2 = 5-6-membered heterocycle; R1, R2 = alkyl; Y1, Y2 = carboxy, sulfonamide, sulfamoyl; X = anion; n = 0, 1). Near-IR-absorbing inks and sheets including I are also claimed. Photog. films containing I in emulsion layers or in hydrophilic colloid layers are also claimed. Thus, 2.2 g II and 1.0 g III were reacted at room temperature in the presence of Et3N in MeOH and treated with AcOH to give IV [λmax 784.4 nm (in DMSO), ε 1.85 + 105]. A photog. film using IV showed high sensitivity and provided images with excellent background whiteness.

L8 ANSWER 58 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:482239 CAPLUS
DOCUMENT NUMBER: 129:257146
TITLE: Antibodies labeled with fluorescence-agent excitable by infrared rays
AUTHOR(S): Muguruma, Naoki; Ito, Susumu; Hayashi, Shigehito; Taoka, Satoko; Kakehashi, Hiromasa; Ii, Kunio; Shibamura, Seiichi; Takesako, Kazuhiro
CORPORATE SOURCE: Second Department of Internal Medicine, School of Medicine, The University of Tokushima, Tokushima, 770-8503, Japan
SOURCE: Journal of Gastroenterology (1998), 33(4), 467-471
CODEN: JOGAET; ISSN: 0944-1174
PUBLISHER: Springer-Verlag Tokyo
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Endoscopy is not significantly better than fiberscopy for the diagnosis of minute cancers of the digestive tract. However, labeling of these lesions with an agent that can be detected videoendoscopically, with subsequent computer processing of the electronic signals, should facilitate endoscopic diagnosis of micro-lesions. We developed an antibody labeled with an indocyanine green(ICG) derivative that has a specific fluorescence emission at 807 nm upon excitation at 768nm. The physiochem. characteristics of this labeled antibody resemble those of ICG. The activity of the antibody is suitable for immunohistochem. staining, and the antibody fluoresces under IR ray excitation. This antibody should prove useful for performing vital immunostaining for IR endoscopy.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 59 OF 76 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:351795 CAPLUS
DOCUMENT NUMBER: 129:38409
TITLE: Optical diagnostic agents for diagnosis of neurodegenerative diseases by means of near infra-red radiation (NIR radiation)
INVENTOR(S): Turner, Jonathan; Dyrks, Thomas; Semmler, Wolfhard; Licha, Kai; Riefke, Bjorn
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung G.m.b.H. an der Freien Universitat Berlin, Germany; Turner, Jonathan; Dyrks, Thomas; Semmler, Wolfhard; Licha, Kai; Riefke, Bjorn

SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9822146	A2	19980528	WO 1997-DE2559	19971029
WO 9822146	A3	19981015		
W: AU, CA, CN, HU, JP, KR, NO, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 19649971	A1	19980528	DE 1996-19649971	19961119
CA 2272320	AA	19980528	CA 1997-2272320	19971029
AU 9872985	A1	19980610	AU 1998-72985	19971029
EP 942756	A2	19990922	EP 1997-948710	19971029
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1237911	A	19991208	CN 1997-199895	19971029
JP 2001506591	T2	20010522	JP 1998-523059	19971029
US 6329531	B1	20011211	US 1999-308177	19991118
PRIORITY APPLN. INFO.:			DE 1996-19649971 A	19961119
			WO 1997-DE2559 W	19971029

OTHER SOURCE(S): MARPAT 129:38409
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention concerns compds. Fm(-A1) (-Bn) (-WO) (I) wherein F is a dye label mol. with an absorption maximum 600-1200 nm; A is a β-amyloid plaque binding biomol.; B is a β-amyloid plaque binding dye; and W is a β-amyloid plaque binding hydrophilic low-mol. structural element. The nos. in the formula are m = 1,2 or if n and o = 0 than m = 3-20; l and n are independently 0,1,2; o = 0,1,2,3,4 if l+n+o ≥ 0. Part F in I is a cyano, squarilium, croconium, merocyano or oxonol dye with the structures II, III, IV and V (R1-R4 and R7-R10 are H, F, Cl, Br, I, nitro or -COOE1, -COOE1E2, -NHCOE1, -NHCONHE1, -NE1E2,- OE1, -OSO3OE1, -SO3OE1, -SO2NHE, -E1; E1 and E2 are independently H, saturated, unsatd., linear, branched C1-C50 alkyl; the chain can include C5 or C6 aromatic or cyclic condensed rings, 0-15 O atoms, 0-3 carbonyl groups or 0-5 hydroxy groups; R1-R4 and/or R7-R10 can be coupled via a six member aromatic ring or they can be coupled to A, B or W; R5 and R6 are -E1, C1-C4 sulfoalkyl, alkylene, cycloalkylene chains; R11 and R12 are Ph rings with 1-3 substituents of hydroxy, carboxy, sulfate, sulfonate, alkyl, alkoxy, or carboxylic acid). The β-amyloid plaque binding biomol. A in I is one of the following: antibody, antibody fragment, specific peptide, protein, receptor, enzyme, enzyme substrate, nucleotide, RNA, DNA, lipoprotein, carbohydrate, saccharide, saccharide derivative, or dextran. The β-amyloid plaque binding dye B in I is a diazo-biphenyl compound The structural element W in I is from the group of the following: -OSO3H, -SO3H, linear, branched, saturated, unsatd., cyclic, polycyclic alkyl, alkenyl, polyalkenyl, alkynyl, aryl, alkylaryl or arylalkyl up to 60 carbon atoms, with substituents hydroxy, carboxy, sulfate, sulfonate. Coupling of part F with A, B and/or W can be via ester, ether, sec., tert., amino group, amido, ureylene, thiol, etc. groups. The invention also includes the physiol. compatible salts of the above compds. These compds. are used as contrast agents for in vivo and in vitro diagnosis of neurodegenerative diseases such as Alzheimer's disease in combination with near infra-red radiation (NIR radiation) and detection of the fluorescent or transmitted light. Further the invention

concerns a test kit, consisting of at least one of the I compds., the carrier, e.g. nitrocellulose membrane, reagents and solvents. Diagnostic agents containing said components are also disclosed.

=> d l6 ibib abs 50-69

L6 ANSWER 50 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:849373 CAPLUS
DOCUMENT NUMBER: 137:358081
TITLE: Diagnostic imaging compositions, their methods of synthesis, and use
INVENTOR(S): Li, Chun; Wen, Xiaoxia; Wu, Qing-Ping; Wallace, Sydney; Ellis, Lee M.
PATENT ASSIGNEE(S): Board of Regents, the University of Texas System, USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002087498	A2	20021107	WO 2002-US12510	20020419
WO 2002087498	A3	20031030		
WO 2002087498	C1	20031211		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2444483	AA	20021107	CA 2002-2444483	20020419
US 2002197261	A1	20021226	US 2002-126369	20020419
US 2003003048	A1	20030102	US 2002-126216	20020419
EP 1389090	A2	20040218	EP 2002-766783	20020419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.:

US 2001-286453P	P	20010426
US 2001-334969P	P	20011204
US 2001-343147P	P	20011220
WO 2002-US12510	W	20020419

AB Conjugate mols. comprising a ligand bonded to a polymer are disclosed. One such conjugate mol. comprises a ligand bonded to a polymer, a chelating agent bonded to the polymer, and a radioisotope chelated to the chelating agent. The conjugate mols. may be useful in detecting and/or treating tumors or biol. receptors. These conjugate mols. may be synthesized without the necessity of preactivation of the ligand using an SCN-polymer-chelating agent precursor. Conjugate mols. incorporating an annexin V ligand are particularly useful for visualizing apoptotic cells. Conjugate mols. incorporating a C225 ligand are particularly useful for targeting tumors expressing EGFR.

L6 ANSWER 51 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:814857 CAPLUS
DOCUMENT NUMBER: 137:326559
TITLE: Cyanine dyes and their use as receptor-avid exogenous optical contrast and therapeutic agents
INVENTOR(S): Achilefu, Samuel I.; Rajagopalan, Raghavan; Dorshow,

Richard B.; Bugaj, Joseph E.
PATENT ASSIGNEE(S): Mallinckrodt Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U.S. 6,395,257.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002156117	A1	20021024	US 2001-864011	20010523
US 6706254	B2	20040316		
US 6395357	B1	20020528	US 2000-484322	20000118
US 2004241095	A1	20041202	US 2004-800531	20040315
US 2005281741	A1	20051222	US 2005-75792	20050309
US 2005271592	A1	20051208	US 2005-146377	20050606
PRIORITY APPLN. INFO.:			US 2000-484322	A2 20000118
			US 2001-864011	A2 20010523
			US 2004-800531	A2 20040315
			US 2005-75792	A3 20050309

OTHER SOURCE(S): MARPAT 137:326559

AB Cyanine dye bioconjugates useful for diagnostic imaging and therapy are disclosed. The conjugates include several cyanine dyes with a variety of bis- and tetrakis(carboxylic acid) homologs. The compds. may be conjugated to bioactive peptides, carbohydrates, hormones, drugs, or other bioactive agents. The small size of the compds. allows more favorable delivery to tumor cells as compared to larger mol. weight imaging agents. The various dyes are useful over the range of 350 to 1300 nm, the exact range being dependent upon the particular dye. The use of DMSO helps to maintain the fluorescence of the compds. The inventive compds. are useful for diagnostic imaging and therapy. In an example, a dark green bis(ethylcarboxymethyl)indocyanine dye was prepared from 1,1,2-trimethyl-1H-benz[e]indole and 3-bromopropionic acid, followed by condensation with glutaconaldehyde dianil monohydrochloride.

L6 ANSWER 52 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:645572 CAPLUS
DOCUMENT NUMBER: 139:145980
TITLE: The Medical Use of Rescaling Procedures in Optical Biopsy and Optical Molecular Imaging
AUTHOR(S): Minet, O.; Beuthan, J.; Licha, K.; Mahnke, C.
CORPORATE SOURCE: Institut fuer Medizinische Physik/Lasermedizin, FU Berlin, Berlin, 14195, Germany
SOURCE: Journal of Fluorescence (2002), 12(2), 201-204
CODEN: JOFLEN; ISSN: 1053-0509
PUBLISHER: Kluwer Academic/Plenum Publishers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Laser-induced autofluorescences show a strong intensity distortion for endogenous NADH in the UV and synthesized markers in the NIR range because of tissue optics. Rescaling taking into account bio-optical methods results in the chromophore profile in the observed tissue region. For the in vivo tests an exptl. NIR imager was used. NIR fluorescence of the entire body of small animals can be imaged. For first expts. an undifferentiated superficial tumor of mouse thigh was used. Corrections that are due to tissue optics must take care of a more strongly scattering of the light in the NIR range in comparison to the UV fluorescence such as in optical biopsy. For example, the diameter of the fluorescent volume is apparently larger for the same reason. Therefore, the established rescaling from the UV adapted to the NIR range is important for the interpretation fluorescence pictures in biomedicine.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 53 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:354015 CAPLUS
DOCUMENT NUMBER: 136:352292
TITLE: Methods and systems for assessing biological materials using optical and spectroscopic detection techniques
INVENTOR(S): Hochman, Daryl W.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 38 pp., Cont.-in-part of U.S. 629,046.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 10
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002055092	A1	20020509	US 2001-1366	20011030
US 6573063	B2	20030603		
US 5902732	A	19990511	US 1995-539296	19951004
US 5976825	A	19991102	US 1997-949416	19971014
US 6096510	A	20000801	US 1999-326008	19990604
US 6319682	B1	20011120	US 2000-629046	20000731
US 2004052730	A1	20040318	US 2003-454153	20030603
PRIORITY APPLN. INFO.:			US 1995-539296	A1 19951004
			US 1997-949416	A2 19971014
			US 1998-88494P	P 19980608
			US 1999-326008	A1 19990604
			US 2000-629046	A2 20000731
			US 2001-1366	A2 20011030

AB Optical detection techniques for the assessment of the physiol. state, health and/or viability of biol. materials are provided. Biol. materials which may be examined using such techniques include cells, tissues, organs and subcellular components. The inventive techniques may be employed in high throughput screening of potential diagnostic and/or therapeutic agents. Examples show stimulation mapping of the cortical surface of awake human patients under local anesthesia to identify sensory/motor cortex and Broca's areas in functional mapping of human language as well as imaging of a rat brain tumor through the intact cranium using indocyanine green dye as contrast enhancing agent to highlight areas of optical change.

L6 ANSWER 54 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:294120 CAPLUS
DOCUMENT NUMBER: 136:306089
TITLE: Tumor-targeted optical contrast agents
INVENTOR(S): Achilefu, Samuel I.; Rajagopalan, Raghavan; Dorshow, Richard B.; Bugaj, Joseph E.
PATENT ASSIGNEE(S): Mallinckrodt Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 31 pp., Cont.-in-part of U.S. Ser. No. 484,320.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002044909	A1	20020418	US 2001-863971	20010523
US 6641798	B2	20031104		
JP 2003520215	T2	20030702	JP 2001-552798	20010117

US 2004141920 A1 20040722 US 2003-654033 20030903
PRIORITY APPLN. INFO.: US 2000-484320 A2 20000118
WO 2001-US1467 W 20010117
US 2001-863971 A2 20010523

OTHER SOURCE(S): MARPAT 136:306089

AB Cyanine dye bioconjugates useful for diagnostic imaging and therapy are disclosed. The conjugates include several cyanine dyes with a variety of bis- and tetrakis (carboxylic acid) homologs. The compds. may be conjugated to bioactive peptides, carbohydrates, hormones, drugs, or other bioactive agents. The small size of the compds. allows more favorable delivery to tumor cells as compared to larger mol. weight imaging agents. The various dyes are useful over the range of 350 to 1,300 nm, the exact range being dependent upon the particular dye. The use of dimethylsulfoxide helps to maintain the fluorescence of the compds. The inventive compds. are useful for diagnostic imaging and therapy, in endoscopic applications for the detection of tumors and other abnormalities, for localized therapy, for photoacoustic tumor imaging, detection and therapy, and for sonofluorescence tumor imaging, detection and therapy.

L6 ANSWER 55 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:264159 CAPLUS
DOCUMENT NUMBER: 137:33520
TITLE: Synthesis, In Vitro Receptor Binding, and In Vivo Evaluation of Fluorescein and Carbocyanine Peptide-Based Optical Contrast Agents
AUTHOR(S): Achilefu, Samuel; Jimenez, Hermo N.; Dorshow, Richard B.; Bugaj, Joseph E.; Webb, Elizabeth G.; Wilhelm, R. Randy; Rajagopalan, Raghavan; Johler, Jill; Erion, Jack L.
CORPORATE SOURCE: Mallinckrodt Institute of Radiology, Washington University School of Medicine, St. Louis, MO, 63110, USA
SOURCE: Journal of Medicinal Chemistry (2002), 45(10), 2003-2015
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 137:33520

AB Site-specific delivery of drugs and contrast agents to tumors protects normal tissues from the cytotoxic effects of drugs and enhances the contrast between normal and pathol. tissues. One approach to achieve selectivity is to target overexpressed receptors on the membranes of tumor cells and to visualize the tumors by a noninvasive optical imaging method. Accordingly, the authors conjugated fluorescein and carbocyanine dyes to somatostatin and bombesin receptor-avid peptides and examined their receptor binding affinities. The authors also prepared potential dual imaging probes consisting of a bioactive peptide for tumor targeting, a biocompatible dye for optical imaging, and a radioactive or paramagnetic metal chelator for scintigraphic or magnetic resonance imaging of tumors. Using these approaches, the resulting carbocyanine derivs. of somatostatin and bombesin analogs retained high binding for their resp. receptors. Further evaluation of representative mols. in rats bearing somatostatin- and bombesin-pos. tumors showed selective uptake of the agents by the tumor cells. Unlike carbocyanine derivs., the receptor binding of fluorescein-somatostatin peptide conjugates was highly sensitive to the type of linker and the site of fluorescein attachment on the nonreceptor binding region of the peptide. In general, the presence of flexible linkers disrupted binding affinity, possibly due to the interaction of the linker's thiourea group with the peptide's cyclic disulfide bond. While the receptor binding affinity of the dual probes was not dependent on the type of chelating group examined,

it was affected by the relative positions of fluorescein and chelator on the lysine linker. For somatostatin compds., best results were obtained when the chelator was on the α-amino lysine linker and fluorescein was on the ε-amino group. In contrast, conjugation of the chelator to ε- and fluorescein to the α-amino lysine linker of bombesin peptides resulted in high receptor binding. These findings indicate that, despite their small size, conjugation of dyes to truncated somatostatin and bombesin peptide analogs results in promising diagnostic agents that retain high receptor binding activity in vitro. The results further show that these contrast agents can selectively and specifically localize in receptor-pos. tumors in rat models.

REFERENCE COUNT: 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 56 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:677718 CAPLUS
DOCUMENT NUMBER: 137:10861
TITLE: New approach to optical imaging of tumors
AUTHOR(S): Achilefu, Samuel I.; Bugaj, Joseph E.; Dorshow, Richard B.; Jimenez, Hermo N.; Rajagopalan, Raghavan
CORPORATE SOURCE: Mallinckrodt, Inc., St. Louis, MO, 63134-0840, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2001), 4259(Biomarkers and Biological Spectra Imaging), 110-114
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Site specific delivery of drugs and contrast agents to tumors protects normal tissues from the cytotoxic effect of drugs, and enhances the contrast between normal and diseased tissues. In optical medicine, biocompatible dyes can be used as phototherapeutics or as contrast agents. Previous studies have shown that the use of covalent or non-covalent dye conjugates of carriers such as antibodies, liposomes, and polysaccharides improves the delivery of such mols. to tumors. However, large biomols. can elicit adverse immunogenic reactions and also result in long blood clearance times, delaying visualization of target tissues. A viable alternative to this strategy is to use small bioactive mol.-dye conjugates. These mols. have several advantages over large biomols., including ease of synthesis of a variety of high purity compds. for combinatorial screening of new targets, enhanced diffusivity to solid tumors, and the ability to affect the pharmacokinetics of the conjugates by minor structural changes. Thus, the authors conjugated a near IR absorbing dye to several bioactive peptides that specifically target overexpressed tumor receptors in established rat tumor lines. High tumor uptake of the conjugates was obtained without loss of either the peptide receptor affinity or the dye fluorescence. These findings demonstrate the efficacy of a small peptide-dye conjugate strategy for in vivo tumor imaging . Site-specific delivery of photodynamic therapy agents may also benefit from this approach.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 57 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:545690 CAPLUS
DOCUMENT NUMBER: 135:142328
TITLE: Dendrimer precursor indocyanine dyes for imaging
INVENTOR(S): Achilefu, Samuel I.; Rajagopalan, Raghavan; Dorshow, Richard B.; Bugaj, Joseph E.
PATENT ASSIGNEE(S): Mallinckrodt Inc., USA
SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001053292	A1	20010726	WO 2001-US1407	20010117
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6395357	B1	20020528	US 2000-484322	20000118
EP 1250333	A1	20021023	EP 2001-942624	20010117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003520868	T2	20030708	JP 2001-553766	20010117
PRIORITY APPLN. INFO.:			US 2000-484322 A	20000118
			WO 2001-US1407 W	20010117

OTHER SOURCE(S): MARPAT 135:142328

AB The sensitivity and specificity of the optical modality can be enhanced by the use of highly absorbing dyes as contrast agents. Novel indocyanine dyes that absorb and emit light in the near IR region of electromagnetic spectrum are disclosed. These dyes are useful for imaging, diagnosis and therapy of various diseased states. Particularly, the mols. of the invention are useful for optical diagnostic imaging and therapy, in endoscopic applications for the detection of tumors and other abnormalities, e.g., atherosclerotic plaques and blood clots, for localized therapy, for photoacoustic tumor imaging , detection and therapy, and for sonofluorescence tumor imaging, detection and therapy. The compns. of indocyanine dyes are prepared by conjugating the dyes to peptides or biomols. by solid phase synthesis. To prevent in vivo or in vitro fluorescence quenching of the diagnostic or therapeutic compns. of the dye mols., 1-50% of DMSO is added. For example, a bis(ethylcarboxymethyl)indocyanine dye was prepared from 1,1,2-trimethyl-[1H]-benz[e]indole and 3-bromopropanoic acid and then the dye was conjugated to Octreotate peptide.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 58 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:434263 CAPLUS
DOCUMENT NUMBER: 136:196239
TITLE: Site-specific tumor-targeted fluorescent contrast agents
AUTHOR(S): Achilefu, Samuel I.; Bugaj, Joseph E.; Dorshow, Richard B.; Jimenez, Hermo N.; Rajagopalan, Raghavan; Wilhelm, R. Randy; Webb, Elizabeth G.; Erion, Jack L.
CORPORATE SOURCE: Mallinckrodt, Inc., St. Louis, MO, 63042, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2001), 4156(Clinical Lasers and Diagnostics), 69-78
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Site-specific delivery of drugs and contrast agents to tumors protects normal tissues from the cytotoxic effect of drugs, and enhances

the contrast between normal and diseased tissues. In optical medicine, biocompatible dyes can be used as photo therapeutics or as contrast agents. Previous studies have shown that the use of covalent or non-covalent dye conjugates of carries such as antibodies, liposomes, and polysaccharides improves the delivery of such mols. to tumors. However, large biomols. can elicit adverse immunogenic reactions and also result in prolonged blood circulation times, delaying visualization of target tissues. A viable alternative to this strategy is to use small bioactive mol.-dye conjugates. These mols. have several advantages over large biomols., including ease of synthesis of a variety of high purity compds. for combinatorial screening of new targets, enhanced diffusivity to solid tumors, and the ability to affect the pharmacokinetics of the conjugates by minor structural changes. Thus, we conjugated a near IR light absorbing dye to bioactive peptides that specifically target over expressed tumor receptors in established rat tumor lines. High tumor uptake of the conjugates was obtained without loss of either the peptide receptor affinity or the dye fluorescence. These findings demonstrate the efficacy of a small peptide-dye conjugate strategy for in vivo tumor imaging. Site-specific delivery of photodynamic therapy agents may also benefit form this approach.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 59 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:419431 CAPLUS

DOCUMENT NUMBER: 136:131141

TITLE: Novel fluorescent contrast agents for optical imaging of in vivo tumors based on a receptor-targeted dye-peptide conjugate platform

AUTHOR(S): Bugaj, Joseph E.; Achilefu, Samuel; Dorshow, Richard B.; Rajagopalan, Raghavan

CORPORATE SOURCE: Mallinckrodt Inc., St. Louis, MO, 63134-0840, USA

SOURCE: Journal of Biomedical Optics (2001), 6(2), 122-133 CODEN: JBOPFO; ISSN: 1083-3668

PUBLISHER: SPIE-The International Society for Optical Engineering

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We have designed, synthesized, and evaluated the efficacy of novel dye-peptide conjugates that are receptor specific. Contrary to the traditional approach of conjugating dyes to large proteins and antibodies, we used small peptide-dye conjugates that target over-expressed receptors on tumors. Despite the fact that the peptide and the dye probe have similar mol. mass, our results demonstrate that the affinity of the peptide for its receptor and the dye fluorescence properties are both retained. The use of small peptides has several advantages over large biomols., including ease of synthesis of a variety of compds. for potential combinatorial screening of new targets, reproducibility of high purity compds., diffusiveness to solid tumors, and the ability to incorporate a variety of functional groups that modify the pharmacokinetics of the peptide-dye conjugates. The efficacy of these new fluorescent optical contrast agents was evaluated in vivo in well-characterized rat tumor lines expressing somatostatin (sst2) and bombesin receptors. A simple continuous wave optical imaging system was employed. The resulting optical images clearly show that successful specific tumor targeting was achieved. Thus, the authors have demonstrated that small peptide-dye conjugates are effective as contrast agents for optical imaging of tumors.

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 60 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:260530 CAPLUS

DOCUMENT NUMBER: 135:104347
TITLE: Receptor-targeted optical imaging of tumors with near-infrared fluorescent ligands
AUTHOR(S): Becker, Andreas; Hessenius, Carsten; Licha, Kai; Ebert, Bernd; Sukowski, Uwe; Semmler, Wolfhard; Wiedenmann, Bertram; Grotzinger, Carsten
CORPORATE SOURCE: Freien Univ., Berlin, 14050, Germany
SOURCE: Nature Biotechnology (2001), 19(4), 327-331
CODEN: NABIF9; ISSN: 1087-0156
PUBLISHER: Nature America Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We report here the in vivo diagnostic use of a peptide-dye conjugate consisting of a cyanine dye and the somatostatin analog octreotate as a contrast agent for optical tumor imaging. When used in whole-body in vivo imaging of mouse xenografts, indotricarbocyanine-octreotate accumulated in tumor tissue. Tumor fluorescence rapidly increased and was more than threefold higher than that of normal tissue from 3 to 24 h after application. The targeting conjugate was also specifically internalized by primary human neuroendocrine tumor cells. This imaging approach, combining the specificity of ligand/receptor interaction with near-IR fluorescence detection, may be applied in various other fields of cancer diagnosis.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 61 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:38760 CAPLUS
DOCUMENT NUMBER: 134:202772
TITLE: Synthesis, characterization, and biological properties of cyanine-labeled somatostatin analogues as receptor-targeted fluorescent probes
AUTHOR(S): Licha, Kai; Hessenius, Carsten; Becker, Andreas; Henklein, Peter; Bauer, Michael; Wisniewski, Stefan; Wiedenmann, Bertram; Semmler, Wolfhard
CORPORATE SOURCE: Institut fuer Diagnostikforschung GmbH an der Freien Universitaet Berlin, Berlin, 14050, Germany
SOURCE: Bioconjugate Chemistry (2001), 12(1), 44-50
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We present the synthesis and characterization of the somatostatin receptor-specific peptide H2N-(D-Phe)-cyclo[Cys-Phe-(D-Trp)-Lys-Thr-Cys]-Thr-OH, which is labeled with a carboxylated indodicarbo- and an indotricarbocyanine dye at the N-terminal amino group. The preparation was performed by automated solid-phase synthesis, with subsequent attachment of the cyanine dye and cleavage of the entire conjugate from the resin. The compds. display high molar absorbance and fluorescence quantum yields typical for cyanine dyes and are thus suitable receptor-targeted contrast agents for mol. optical imaging. The ability of these agents to target the somatostatin receptor was demonstrated by flow cytometry in vitro, in which the indotricarbocyanine conjugate led to elevated cell-associated fluorescence on somatostatin receptor-expressing tumor cells. In contrast, the corresponding linearized derivative of the sequence H2N-(D-Phe)-Met-Phe-(D-Trp)-Lys-Thr-Met-Thr-OH produced only minimal cell fluorescence, hence confirming the specificity of the cyclic somatostatin analog. Intracellular localization could be visualized by near-IR (NIR) fluorescence microscopy. In conclusion, receptor-specific peptides are promising tools for designing site-directed optical contrast agents for use in mol. optical imaging.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 62 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:741964 CAPLUS
DOCUMENT NUMBER: 133:319295
TITLE: Short-chain peptide dye conjugates used as contrast agents for optical diagnostics
INVENTOR(S): Licha, Kai; Becker, Andreas; Semmler, Wolfhard; Wiedenmann, Bertram; Hessenius, Carsten; Volkmer-Engert, Rudolf; Schneider-Mergener, Jens; Bhargava, Sarah
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung G.m.b.H. an der Freien Universitat Berlin, Germany
SOURCE: PCT Int. Appl., 110 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000061194	A2	20001019	WO 2000-EP2697	20000328
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19917713	A1	20001019	DE 1999-19917713	19990409
US 6630570	B1	20031007	US 2000-528200	20000317
CA 2368490	AA	20001019	CA 2000-2368490	20000328
BR 2000009658	A	20020115	BR 2000-9658	20000328
EP 1176987	A2	20020206	EP 2000-922560	20000328
EP 1176987	B1	20040211		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2002541219	T2	20021203	JP 2000-610526	20000328
EE 200100521	A	20021216	EE 2001-521	20000328
EP 1281405	A2	20030205	EP 2002-90268	20000328
EP 1281405	A3	20030212		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
NZ 514533	A	20030926	NZ 2000-514533	20000328
AU 769392	B2	20040122	AU 2000-42911	20000328
AT 259246	E	20040215	AT 2000-922560	20000328
NZ 522135	A	20040528	NZ 2000-522135	20000328
NZ 522136	A	20040528	NZ 2000-522136	20000328
PT 1176987	T	20040630	PT 2000-922560	20000328
ES 2215641	T3	20041016	ES 2000-922560	20000328
BG 105988	A	20020628	BG 2001-105988	20011008
NO 2001004911	A	20011206	NO 2001-4911	20011009
ZA 2001009238	A	20030210	ZA 2001-9238	20011108
US 2006036072	A1	20060216	US 2003-626719	20030725

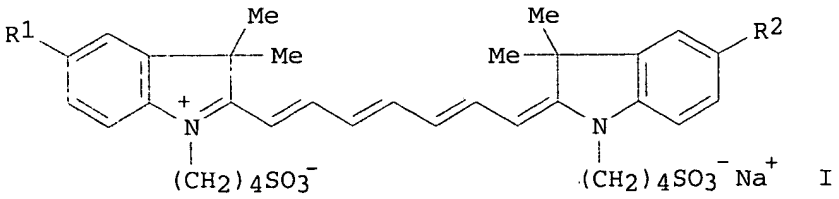
PRIORITY APPLN. INFO.:		
DE 1999-19917713	A	19990409
US 1999-128785P	P	19990412
US 2000-528200	A3	20000317
EP 2000-922560	A3	20000328
NZ 2000-514533	A1	20000328
WO 2000-EP2697	W	20000328

OTHER SOURCE(S): MARPAT 133:319295
AB The invention relates to compds. which are used for diagnosing tumors comprised of conjugates of dyes having short-chain peptides

that are derived from the vasoactive intestinal peptide, from somatostatin or from neurotensin. The invention also relates to the use of these compds. as optical diagnostic agents and to diagnostic products containing these compds. Peptide-polymethine dye conjugates are described with the general formula A1-(X)m-A2; where X = α,β,γ amino acid with D or L conf.; m = 5-30 linear or disulfide bridge containing; A1 = H, acyl, alkyl up to C10, C1-3 carboxyl, or OH substituted, polyethylene oxyde, or polyemethyne dye with adsorption at 380 - 1200 nm; A2 = hydroxy, amino, or polymethyne dye with adsorption at 380 - 1200 nm; at least one of A1 and A2 is a polymethyne dye.

L6 ANSWER 63 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:739264 CAPLUS
DOCUMENT NUMBER: 135:2278
TITLE: Tumor-specific fluorescent contrast agents
AUTHOR(S): Achilefu, Samuel I.; Dorshow, Richard B.; Bugaj, Joseph E.; Rajagopalan, Raghavan
CORPORATE SOURCE: Mallinckrodt Inc., St. Louis, MO, 63134-0804, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 3917(Optical Biopsy III), 80-86
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Several dyes are currently used for various biomedical applications due to their biocompatibility and high molar absorptivity. Localization of dyes in tumors may be mediated by several factors such as leaky vasculature and high metabolic activity in proliferating cells. However, these mechanisms of action make it difficult to differentiate inflammation from benign or malignant tumors. In order to enhance their tumor specificity, dyes have been conjugated to biomols. that target unique factors in various diseased state. However, such large biomols. can elicit adverse immunogenic reactions in humans, and are often preferentially taken up by the liver. Furthermore, for solid tumors which may rely on diffusion of the biomarkers from the vascular, penetration of large dye conjugates is not favorable. To overcome these problems, we designed and synthesized novel dye-peptide conjugates that are receptor specific. The efficacy of these new fluorescent contrast agents was tested in vivo in well-characterized rat tumor lines. The resulting optical images demonstrate that successful specific tumor targeting was achieved.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 64 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:647908 CAPLUS
DOCUMENT NUMBER: 134:2263
TITLE: Hydrophilic cyanine dyes as contrast agents for near-infrared tumor imaging: synthesis, photophysical properties and spectroscopic in vivo characterization
AUTHOR(S): Licha, Kai; Riefke, Bjorn; Ntziachristos, Vasilis; Becker, Andreas; Chance, Britton; Semmler, Wolfhard
CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, 14050, Germany
SOURCE: Photochemistry and Photobiology (2000), 72(3), 392-398
CODEN: PHCBAP; ISSN: 0031-8655
PUBLISHER: American Society for Photobiology
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

AB We have synthesized a group of glucamine and glucosamine-substituted cyanine dyes structurally related to indocyanine green (ICG) and have characterized these compds. with regard to their potential as contrast agents for biomedical optical imaging. The compds. reported herein exhibit increased hydrophilicity and less plasma protein binding (<50%), and are thus expected to have different pharmacokinetic properties compared with ICG. Furthermore, we measured enhanced fluorescence quantum yields (7-15%) in a physiol. environment with respect to ICG. For the derivative with the highest hydrophilicity (I; R1, R2 = CO-glucamid) the efflux from tumor and normal tissue was monitored by intensity-modulated diffuse optical spectroscopy after i.v. injection into tumor-bearing rats. In comparison with ICG, I exhibited a considerably enhanced tissue-efflux half-life (73 min vs. less than 10 min for ICG in tumor tissue), a two-fold higher initial tissue absorption coefficient compared to ICG, and finally, it generated an elevated tumor-to-tissue concentration gradient up to 1 h after injection. In conclusion, compds. such as I are promising contrast agents for optical imaging, and could facilitate highly sensitive and specific detection of breast cancer or other malignancies by utilizing mechanisms similar to contrast-enhanced magnetic resonance imaging or computerized tomog.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 65 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:587591 CAPLUS
DOCUMENT NUMBER: 134:82796
TITLE: Novel receptor-targeted fluorescent contrast agents for in vivo tumor imaging
AUTHOR(S): Achilefu, Samuel; Dorshow, Richard B.; Bugaj, Joseph E.; Rajagopalan, Raghavan
CORPORATE SOURCE: Discovery Research, Mallinckrodt Inc., St. Louis, MO, 63042, USA
SOURCE: Investigative Radiology (2000), 35(8), 479-485
CODEN: INVRAV; ISSN: 0020-9996
PUBLISHER: Lippincott Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Objectives: to evaluate the efficacy of a novel tumor receptor-specific small-peptide-near-IR dye conjugate for tumor detection by optical imaging. A novel, near-IR dye-peptide conjugate was synthesized and evaluated for tumor-targeting efficacy in a well-characterized rat tumor model (CA20948) known to express receptors for the chosen peptide. A simple continuous-wave optical imaging system, consisting of a near-IR laser diode, a cooled CCD camera, and an interference filter, was used in this study. Tumor retention of two non-tumor-specific dyes, indocyanine green and its derivatized analog, bis-propanoic acid cyanine dye (cypate), was negligible. In contrast, the receptor-specific peptide-cypate conjugate (cytate) was retained in the CA20948 tumor, with an excellent tumor-to-normal-tissue ratio in the six rats examined Optical detection of tumors with a receptor-targeted fluorescent contrast agent has been demonstrated. This result represents a new direction in cancer diagnosis and patient

management.
REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 66 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:566355 CAPLUS
DOCUMENT NUMBER: 133:249022
TITLE: Macromolecular contrast agents for optical imaging of tumors: comparison of indotricarbocyanine-labeled human serum albumin and transferrin
AUTHOR(S): Becker, Andreas; Riefke, Bjorn; Ebert, Bernd; Sukowski, Uwe; Rinneberg, Herbert; Semmler, Wolfhard; Licha, Kai
CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, 14050, Germany
SOURCE: Photochemistry and Photobiology (2000), 72(2), 234-241
CODEN: PHCBAP; ISSN: 0031-8655
PUBLISHER: American Society for Photobiology
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Macromols. accumulate in solid tumors and can thus be used as carriers for the delivery of attached contrast agents to tumors. We report the synthesis and use of serum protein-dye conjugates consisting of transferrin (Tf) or human serum albumin (HSA) and an indotricarbocyanine (ITCC) derivative as contrast agents for the optical imaging of tumors. The compds. were characterized with respect to their photophys. properties and tested in vitro for their ability to bind to tumor cells and in vivo for their potential to delineate exptl. tumors. In contrast to HAS-ITTC, Tf-ITCC showed receptor-mediated uptake by HT29 human colon cancer cells in vitro. After i.v. injection into HT29 tumor-bearing nude mice both compds. induced increased fluorescence contrast of tumors in vivo. After 24 h the contrast between tumor and normal tissue was significantly higher for Tf-ITCC than for HAS-ITCC. Dye-induced fluorescence was found to be predominantly located in perinecrotic areas of the tumor. Furthermore, Tf-ITCC produced fluorescence of viable tumor cells, whereas HAS-ITCC fluorescence was recorded along connective tissue. We conclude that ITCC-labeled Tf and HSA can serve as macromol. contrast agents for the optical imaging of tumors, with Tf-ITCC showing higher efficiency.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 67 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:516171 CAPLUS
DOCUMENT NUMBER: 134:127990
TITLE: Novel receptor-targeted contrast agents for optical imaging of tumors
AUTHOR(S): Becker, Andreas; Hessenius, Carsten; Bhargava, Sarah; Ebert, Bernd; Sukowski, Uwe; Rinneberg, Herbert H.; Wiedenmann, Bertram; Semmler, Wolfhard; Licha, Kai
CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freie Univ. Berlin, Berlin, Germany
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 3924(Molecular Imaging: Reporters, Dyes, Markers, and Instrumentation), 41-47
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Many gastroenteropancreatic tumors express receptors for somatostatin (SST) and/or vasoactive intestinal peptide (VIP). These receptors can be used as mol. targets for the delivery of contrast agents

for tumor diagnostics. We have synthesized conjugates consisting of a cyanine dye and an SST analog or VIP for use as contrast agents in optical imaging. Receptor binding and internalization of these compds. were examined with optical methods in transfected RIN38 tumor cells expressing the SST2 receptor or a GFP- labeled VIP (VPAC1) receptor. Furthermore, biodistribution of the conjugates was examined by laser-induced fluorescence imaging in nude mice bearing SST2 or VPAC1 receptor- expressing tumors. After incubation of RIN38 SSTR2 cells in the presence of 100 nM indotricarbocyanine-SST analog, cell-associated fluorescence increased, whereas no increase was observed when receptor-medicated endocytosis was inhibited. Indodicarbocyanine-VIP accumulated in RIN38 VPAC1 cells and co-localization with the GFP-labeled VPAC1 receptor was observed After injection of indotricarbocyanine-SST analog into tumor-bearing nude mice, SST2 receptor-pos. tumors could be visualized for a time period from 10 min to at least 48 h. After application of indodicarbocyanine-VIP, a fluorescence signal in VIP1 receptor-expressing tumors was only detected during the first hour. We conclude that cyanine dye-labeled VIP and SST analog are novel, targeted contrast agents for the optical imaging of tumors expressing the relevant receptor.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 68 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:505556 CAPLUS

DOCUMENT NUMBER: 133:234505

TITLE: Pharmacokinetics of ICG and HPPH-car for the detection of normal and tumor tissue using fluorescence, near-infrared reflectance imaging: a case study

AUTHOR(S): Gurfinkel, Michael; Thompson, Alan B.; Ralston, William; Troy, Tamara L.; Moore, Ana L.; Moore, Thomas A.; Gust, J. Devens; Tatman, Derreck; Reynolds, Jeffery S.; Muggenburg, Bruce; Nikula, Kristin; Pandey, Ravindra; Mayer, Ralf H.; Hawrysz, Daniel J.; Sevick-Muraca, Eva M.

CORPORATE SOURCE: School of Chemical Engineering, Purdue University, West Lafayette, IN, USA

SOURCE: Photochemistry and Photobiology (2000), 72(1), 94-102 CODEN: PHCBAP; ISSN: 0031-8655

PUBLISHER: American Society for Photobiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We present in vivo fluorescent, near-IR (NIR), reflectance images of indocyanine green (ICG) and carotene-conjugated 2-devinyl-2-(1-hexyloxyethyl) pyropheophorbide (HPPH-car) to discriminate spontaneous canine adenocarcinoma from normal mammary tissue. Following i.v. administration of 1.0 mg kg-1 ICG or 0.3 mg kg-1 HPPH-car into the canine, a 25 mW, 778 nm or 70 mW, 660 nm laser diode beam, expanded by a diverging lens to approx. 4 cm in diameter, illuminated the surface of the mammary tissue. Successfully propagating to the tissue surface, ICG or HPPH-car fluorescence generated from within the tissue was collected by an image-intensified, charge-coupled device camera fitted with an 830 or 710 nm bandpass interference filter. Upon collecting time-dependent fluorescence images at the tissue surface overlying both normal and diseased tissue vols., and fitting these images to a pharmacokinetic model describing the uptake (wash-in) and release (wash-out) of fluorescent dye, the pharmacokinetics of fluorescent dye was spatially determined Mapping the fluorescence intensity owing to ICG indicates that the dye acts as a blood pool or blood persistent agent, for the model parameters show no difference in the ICG uptake rates between normal and diseased tissue regions. The wash-out of ICG was delayed for up to 72 h after i.v. injection in tissue vols. associated with disease, because ICG

fluorescence was still detected in the diseased tissue 72 h after injection. In contrast, HPPH-car pharmacokinetics illustrated active uptake into diseased tissues, perhaps owing to the overexpression of LDL receptors associated with the malignant cells. HPPH-car fluorescence was not discernable after 24 h. This work illustrates the ability to monitor the pharmacokinetic delivery of NIR fluorescent dyes within tissue vols. as great as 0.5-1 cm from the tissue surface in order to differentiate normal from diseased tissue vols. on the basis of parameters obtained from the pharmacokinetic models.

REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 69 OF 84 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:209951 CAPLUS
DOCUMENT NUMBER: 132:233734
TITLE: Near infrared fluorescent contrast agent and fluorescence imaging
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PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany; Fuji Photo Film Co., Ltd.
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000016810	A1	20000330	WO 1999-EP7088	19990916
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
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PRIORITY APPLN. INFO.:                       JP 1998-283301      A  19980918
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OTHER SOURCE(S):         MARPAT 132:233734
AB   A near IR fluorescent contrast agent comprising a compound having three or
     more sulfonic acid groups in a mol., and a method of fluorescence
     imaging comprising introducing the near IR fluorescent contrast
     agent of the present invention into a living body, exposing the body to an
     excitation light, and detecting near IR fluorescence from the contrast
     agent.  The near IR fluorescent contrast agent of the present invention is
     excited by an excitation light and emits near IR fluorescence.  This IR
     fluorescence is superior in transmission through biol. tissues.  Thus,
     detection of lesions in the deep part of a living body has been made
     possible.  In addition, the inventive contrast agent is superior in water
     solubility and low toxic, and therefore, it can be used safely.
REFERENCE COUNT:         11    THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS
                               RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT


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     (FILE 'HOME' ENTERED AT 13:29:09 ON 14 AUG 2006)

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L1             STRUCTURE UPLOADED
L2              50 S L1
L3            2233 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 13:30:10 ON 14 AUG 2006
L4            2536 S L3
L5             462 S L4 AND IMAG?
L6              84 S L5 AND (ANGIO? OR TUMO?)
L7              12 S L6 AND SULF?
L8              76 S L5 AND SULF?
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